



ST. LOUIS DISTRICT MOBILITY

QUARTERLY REGIONAL MOBILITY REPORT ■ SEPTEMBER / OCTOBER / NOVEMBER 2018 | EDITION NO. 05

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Provide Outstanding Customer Service & Deliver Transportation Services of Great Value

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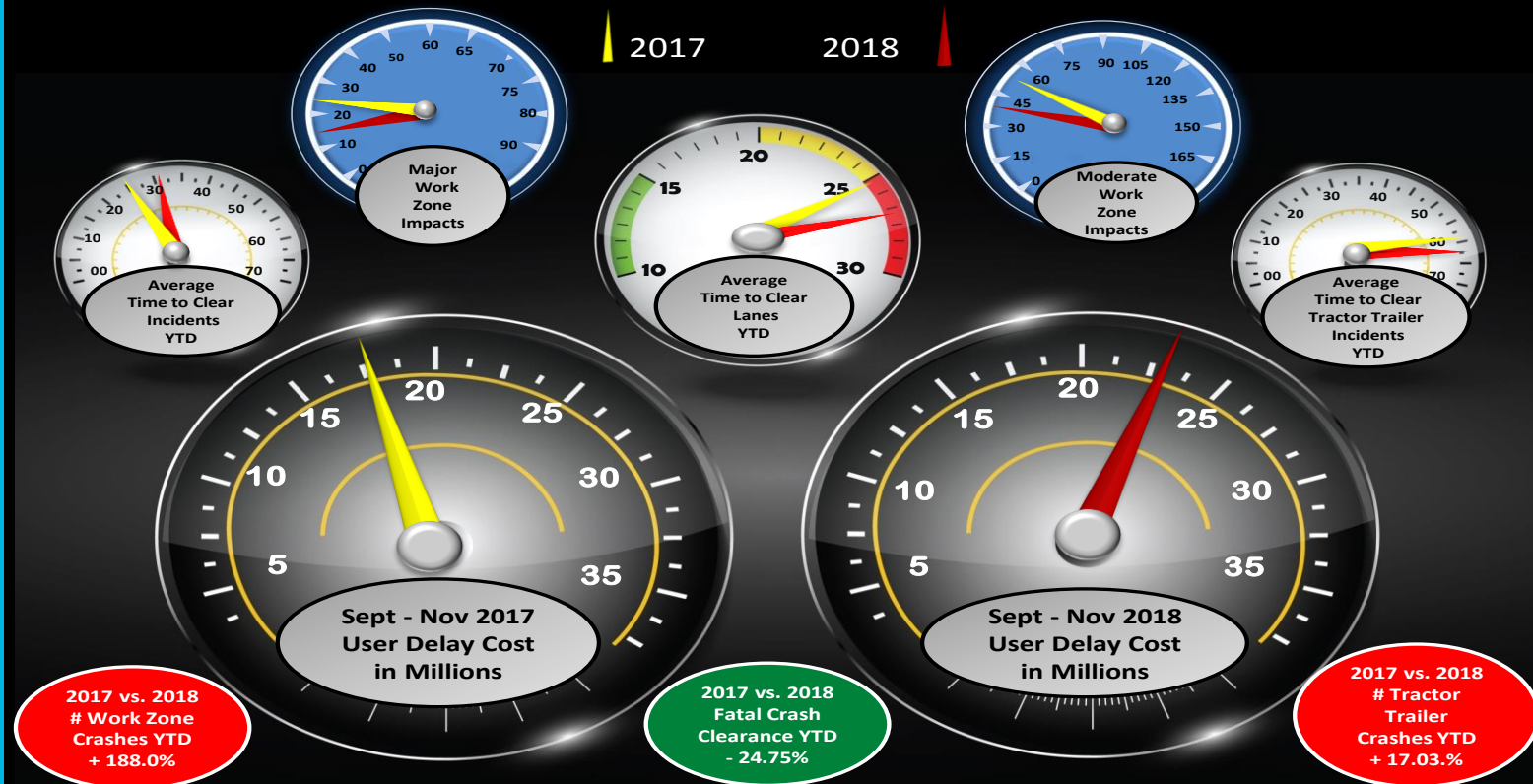
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Keep Customers and Ourselves Safe



User Delay Cost: Passenger Vehicle \$17.67 Commercial Vehicle \$68.09
Sources Texas Transportation Institute & American Transportation Research Institute

September thru November 2017 Grand Total and Average

Delay cost:	Vehicle Miles traveled (VMT)
Total \$17,036,219	Total: 2,137,510,875 miles
Hours of delay	Passenger: 1,923,759,788 miles
Person-hours: 781,983h 5m	Commercial: 213,751,088 miles
Vehicle hours: 638,353h 33m	Delay per VMT: 0.0179 mins/mile

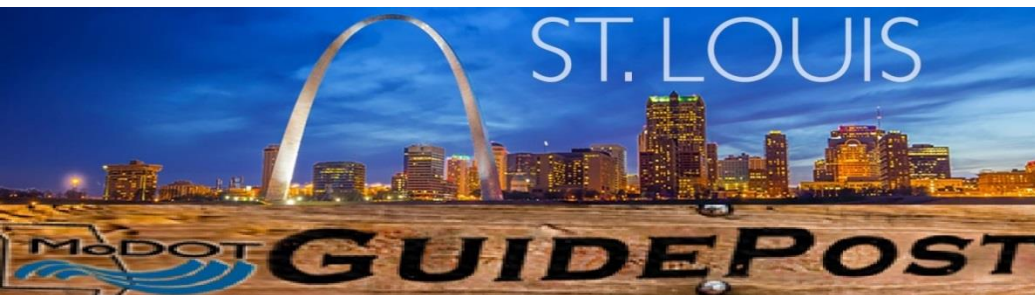
September thru November 2018 Grand Total and Average

Delay cost:	Vehicle Miles traveled (VMT)
Total \$22,703,302	Total: 2,160,670,381 miles
Hours of delay	Passenger: 1,944,603,343 miles
Person-hours: 1,042,109h 3m	Commercial: 216,067,038 miles
Vehicle hours: 850,701h 16m	Delay per VMT: 0.0236 mins/mile



EXECUTIVE SUMMARY

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Average time to clear lanes increased by nearly 2 minutes.

Work zone crashes increased from 9 to 26 a 188% increase.

Major and moderate work zone impacts dropped considerably from 2017 to 2018.

Overall regional mobility decreased for the AM and PM peak periods.

Westbound US 40 @ I-70 (Wentzville) moved from #2 to #1 on the Top 5 Congestion Locations. Eastbound I-64 @ I-44/I-55/US 40 dropped from #1 to #5, SB I-170 @ Galleria Parkway made the list at #4.

ZONING IN

TMS Work Zones:

Sep 2018: 347
Oct 2018: 379
Nov 2018: 274

Work Zone Impact Breakdown:

Major: 14 – 1.8%
Moderate: 42 – 5.3%
Minor: 734 – 92.9%

WORK ZONE CRASHES: 26

Most Significant Impact Events

Planned Event

Date: Entire Quarter

Location: Eastbound I-44 from I-270 to Jefferson / Westbound I-44 from Jefferson to I-270
Event Detail: Continued Bridge work with multiple projects and daily lane closures

Unplanned Event

Date: 11-13

Location: Eastbound I-64 at Mile Marker 18.4
Event Detail: Tractor trailer crashed into a stalled tractor causing a fire and resulting in a fatality



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Top 5 Congestion Locations / September – November 2017 vs. 2018

*Locations ranked on Base Impact (The aggregation of Queue Length over time for congestion originating at each location in mile minutes)

	Congestion Locations 2017	*Base Impact	Average Queue Length Miles	Average Daily Duration	Total Duration
1	EB I-64 @ I-44/I-55/US40	30,071.73	1.56	3h 31 m	13d 8h 10m
2	WB US 40 @ I-70 (Wentzville)	21,541.54	2.66	1h 29m	5d 15h 20m
3	SB I-270 @ MO100 Manchester Road	21,148.80	1.44	2h 45m	10d 10h 42m
4	WB I-64 @ Clayton Ave / Oakland Ave	20,973.00	2.32	1h 48m	6d 20h 35m
5	EB I-64 @ Big Bend Boulevard	14,249.88	2.65	0h 57m	3d 15h 45m

	Congestion Locations 2018	*Base Impact	Average Queue Length Miles	Average Daily Duration	Total Duration
1	WB US 40 @ I-70 (Wentzville)	33,478.12	2.69	2h 11m	8d 7h 6m
2	WB I-64 @ Clayton Ave / Oakland Ave	27,392.73	2.45	1h 55m	7d 6h 37m
3	SB I-270 @ MO100 Manchester Road	23,173.78	1.43	2h 51m	10d 20h 42m
4	SB I-170 @ Galleria Parkway	22,832.16	1.86	2h 14m	8d 11h 40m
5	EB I-64 @ I-44/I-55/US40	21,500.95	1.54	2h 36m	9d 21h 48m

Average Incident Duration Comparison / 2017 vs. 2018

Month	Average Incident Duration (Minutes : Seconds)	2017	2018
September	Lane Clearance	25:14	26:07
October	Lane Clearance	26:41	26:26
November	Lane Clearance	25:19	30:32
September	Incident Clearance	29:52	30:09
October	Incident Clearance	31:25	31:03
November	Incident Clearance	29:38	34:35

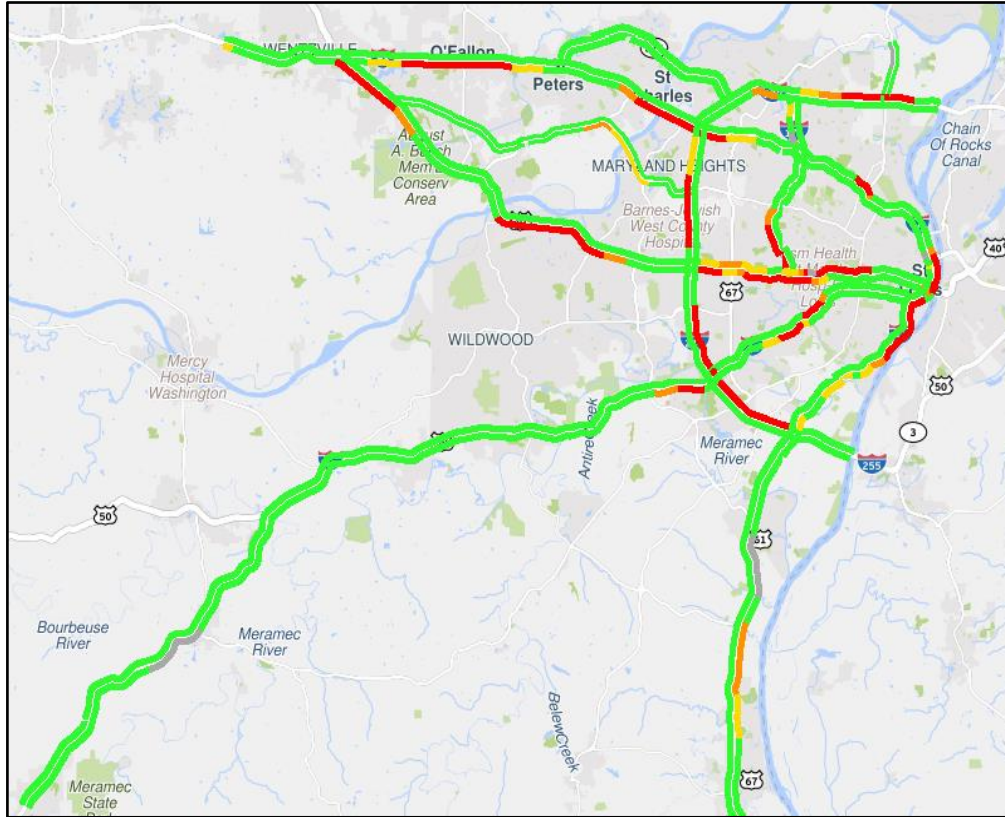


FREEWAY MANAGEMENT

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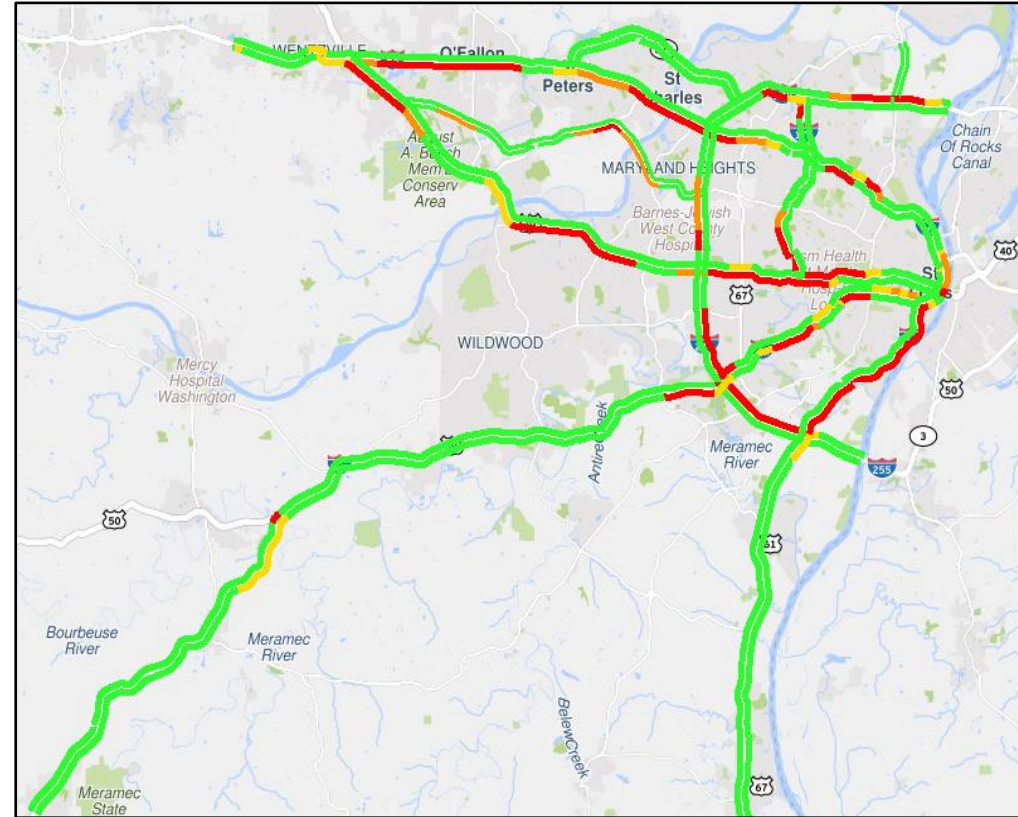
DECREASE in Overall AM Mobility

AM Peak Mobility September/October/November 2017 vs 2018 *



2017

- > 90 % of free-flow speed
- 85% - 90 % of free-flow speed
- 80 % - 85 % of free-flow speed
- < 80 % of free-flow speed



2018

Regional % of free-flow speed hourly breakdown**:

	2017	2018
6 AM	100% →	100%
7 AM	92.3% →	91.1%
8 AM	94.3% →	93.6%
9 AM	100% →	100%

* 7am hour shown

**Regional % of free-flow speed is the averaged % of free-flow speeds for all directions of all freeways within the St. Louis District. This provides a high-level measurement of overall regional mobility for each peak hour.

Highlighted Corridor AM Summary

I-70

Comparing AM September/October/November 2017 vs 2018

AM EB I-70 Overall Mobility DECREASED 2017 → 2018

AM WB I-70 Overall Mobility mostly consistent from 2017 → 2018 with lowered mobility through the 7am – 8am hour.

Active Work Zones During Report Period

2017

6-Sep-17	EB I-70 Single Lane Closed	Bridge Inspection Blanchette	9:00 am to 3:00 pm
27-Sep-17	WB I-70 Two Lanes	Bridge Inspection Blanchette	9:00 am to 3:00 pm
11-Oct-17	EB I-70 Single Lane Closed	Bridge Inspection Blanchette	9:00 am to 3:00 pm
18-Oct-17	EB I-70 Single Lane Closed	Bridge Inspection Blanchette	9:00 am to 3:00 pm
8-Nov-17	EB I-70 Single Lane Closed	Deck Repair Stan Musial	9:00 am to 3:00 pm

2018

12-Sep-18	WB I-70 Single Right Lane Closure	MoDOT/IDOT Joint River Bridge Inspection Stan Musial	9:00 am to 12:00 pm
17-Oct-18	EB I-70 Single Lane Closed	Bridge Inspection Blanchette	9:00 am to 3:00 pm
21-Nov-18	70/61 Interchange Rolling Lane Drops	Striping Operation	10:00 am to 3:00 pm



FREEWAY MANAGEMENT

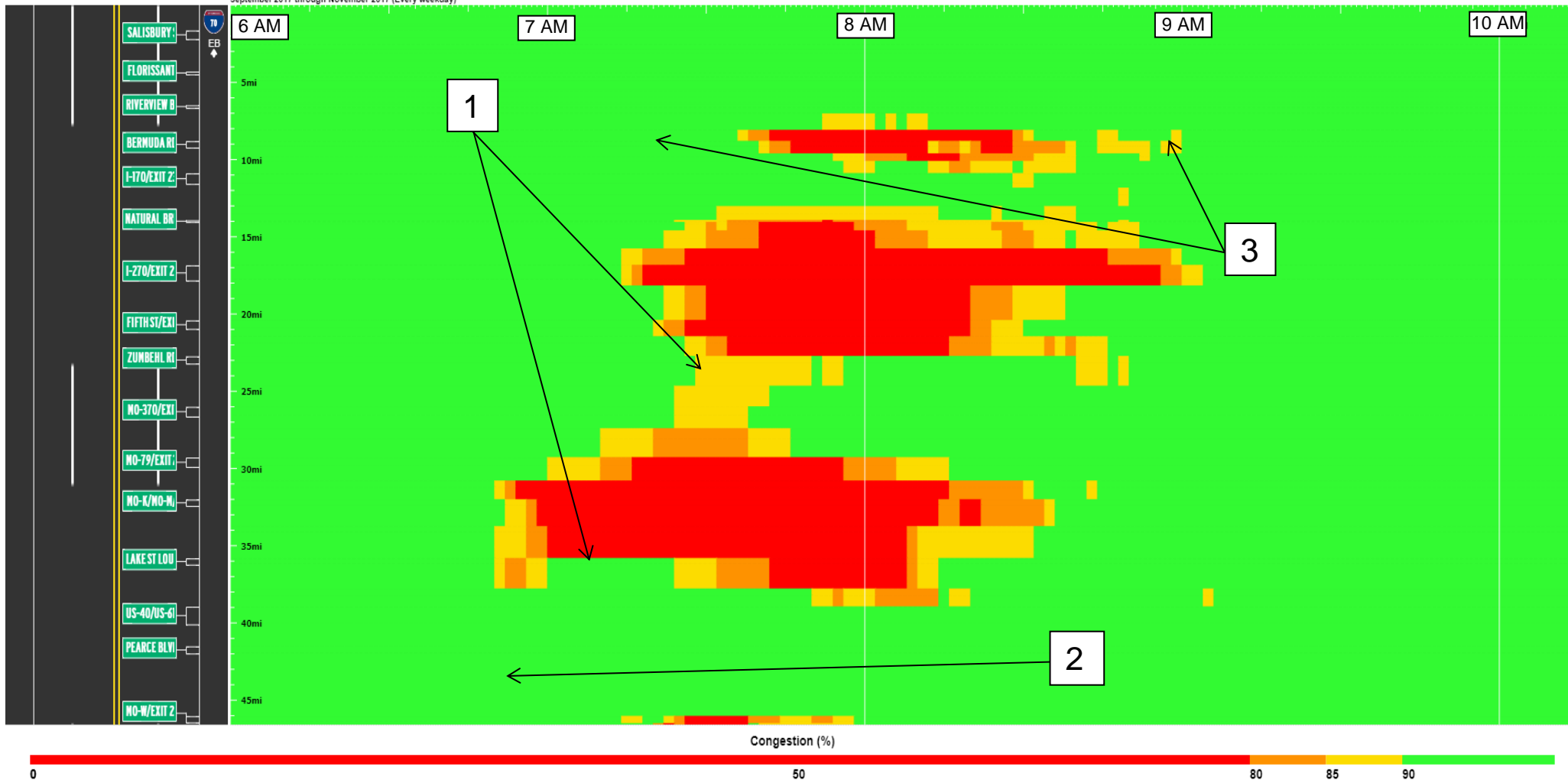
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AM 2017 EB I-70

EB I-70 between Hwy W and Stan Musial Veterans Memorial Bridge

Averaged by 2 minutes for September 2017 through November 2017 (Every weekday)

September 2017 through November 2017 (Every weekday)





FREEWAY MANAGEMENT

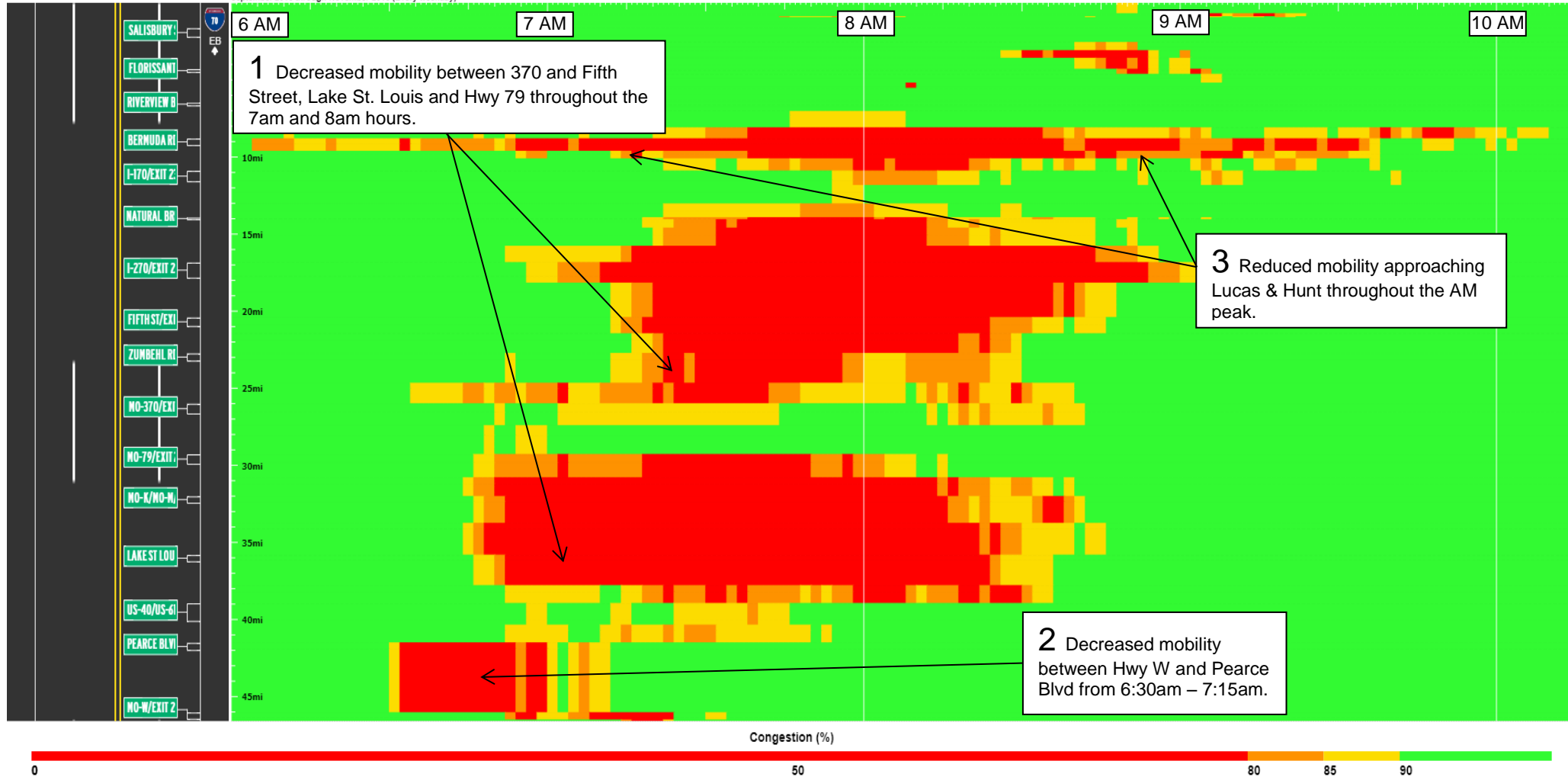
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AM 2018 EB I-70

EB I-70 between Hwy W and Stan Musial Veterans Memorial Bridge

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September 2018 through November 2018 (Every weekday)





FREEWAY MANAGEMENT

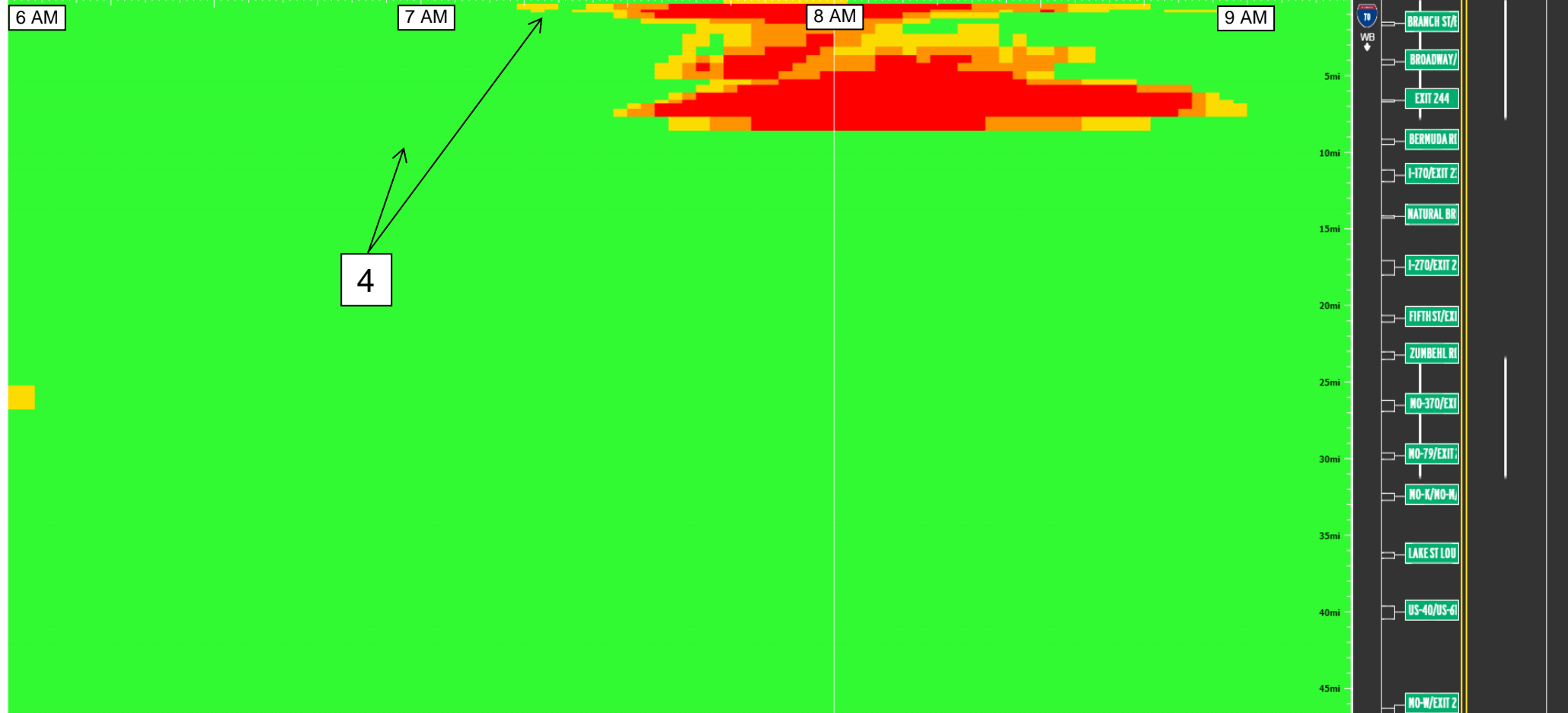
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AM 2017 WB I-70

WB I-70 between Stan Musial Veterans Memorial Bridge and Hwy W

Averaged by 2 minutes for September 2017 through November 2017 (Every weekday)

September 2017 through November 2017 (Every weekday)



Congestion (%)

0

50

80

85

90

8

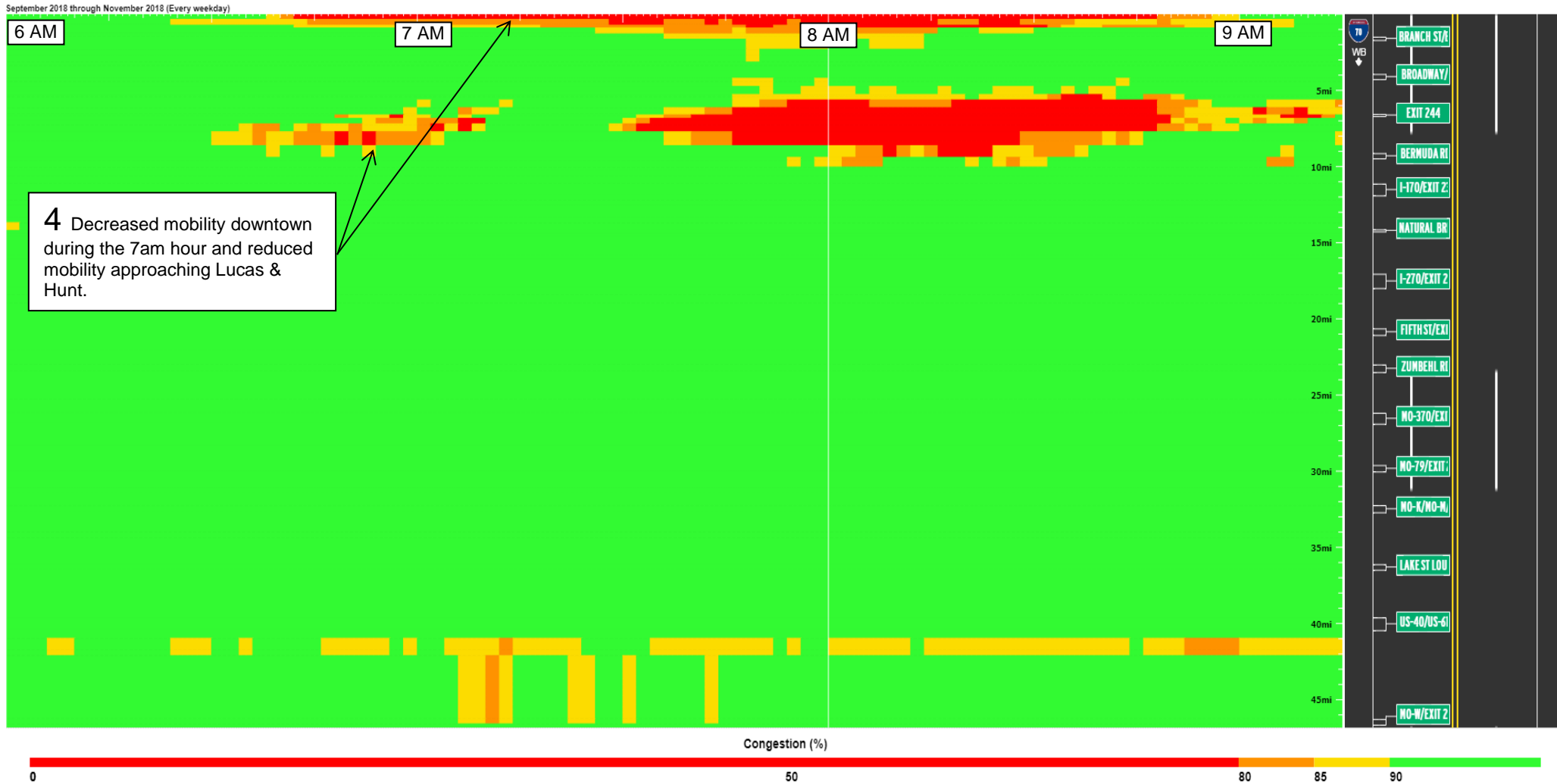


FREEWAY MANAGEMENT

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AM 2018 WB I-70

WB I-70 between Stan Musial Veterans Memorial Bridge and Hwy W
Averaged by 2 minutes for September 2018 through November 2018 (Every weekday)



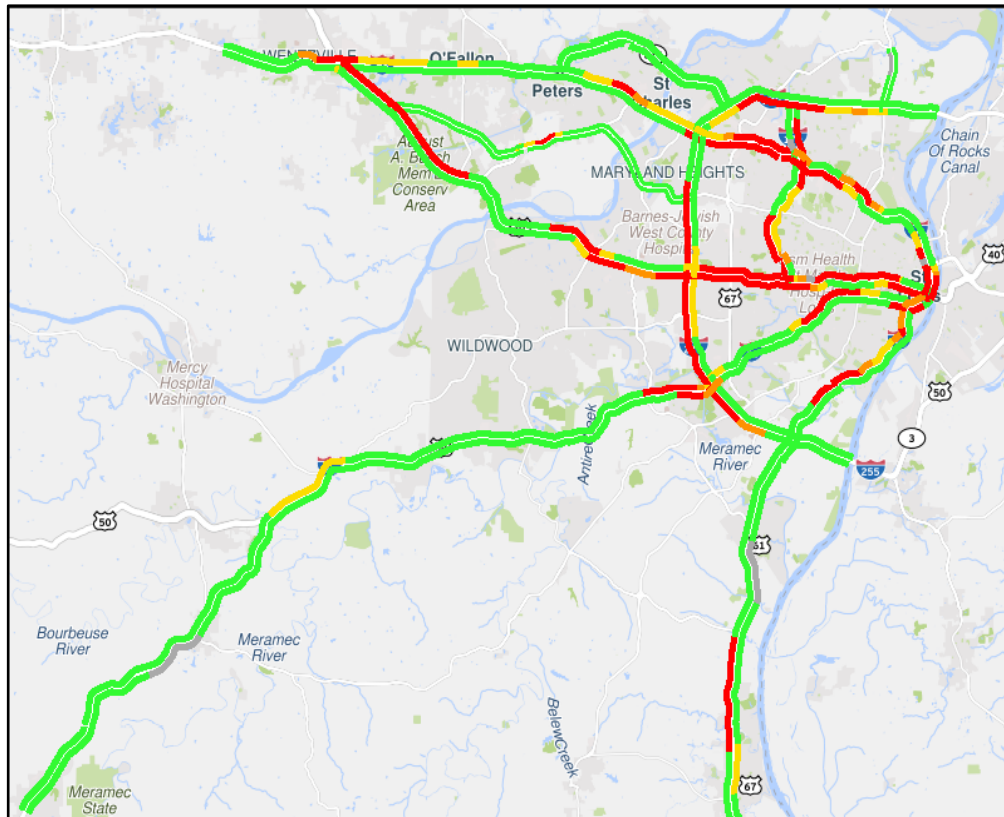


FREEWAY MANAGEMENT

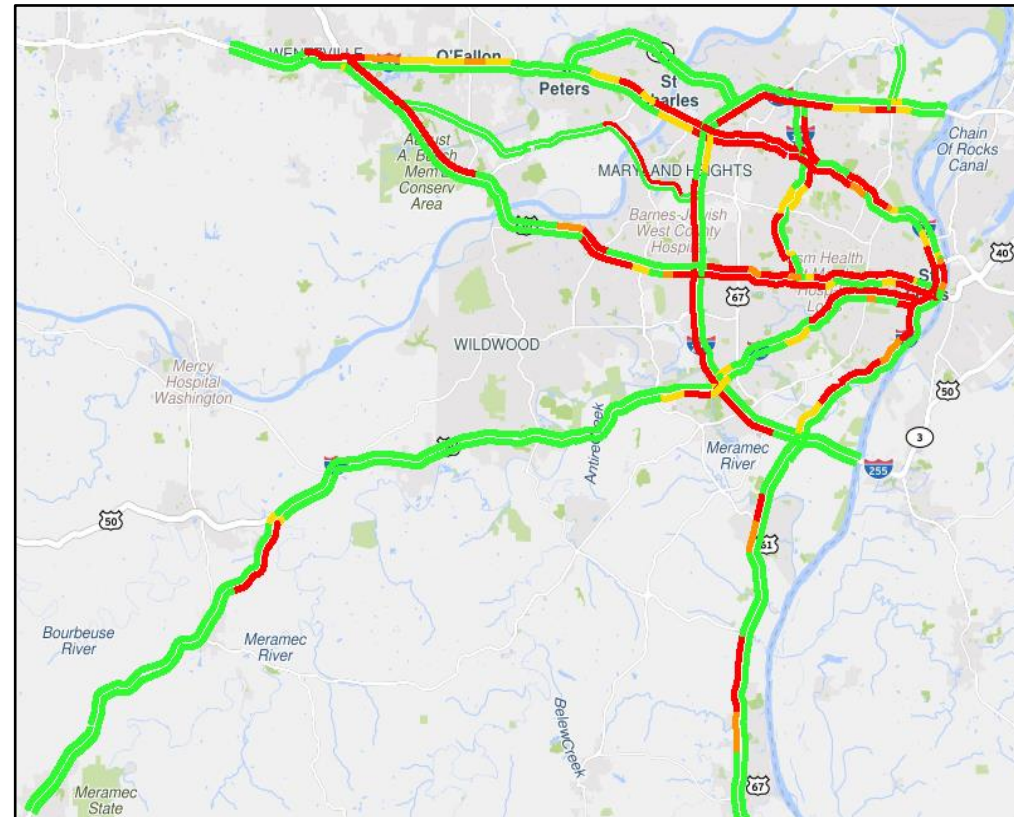
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DECREASE in Overall PM Mobility

PM Peak Mobility September/October/November 2017 vs 2018 *



2017



2018

Regional % of free-flow speed hourly breakdown**:

	2017	2018
3 PM	98.2% →	96.1%
4 PM	90.4% →	87.4%
5 PM	86.4% →	83.7%
6 PM	98.1% →	96.9%

* 5pm hour shown

**Regional % of free-flow speed is the averaged % of free-flow speeds for all directions of all freeways within the St. Louis District. This provides a high-level measurement of overall regional mobility for each peak hour.

Highlighted Corridor PM Summary

I-70

Comparing PM September/October/November 2017 vs 2018

PM EB I-70 Overall Mobility DECREASED 2017 → 2018 with some mobility improvements approaching I-170 in the 6pm hour.

PM WB I-70 Overall Mobility DECREASED 2017 → 2018 throughout the PM Peak.

Active Work Zones During Report Period

2017

6-Sep-17	EB I-70 Single Lane Closed	Bridge Inspection Blanchette	9:00 am to 3:00 pm
27-Sep-17	WB I-70 Two Lanes	Bridge Inspection Blanchette	9:00 am to 3:00 pm
11-Oct-17	EB I-70 Single Lane Closed	Bridge Inspection Blanchette	9:00 am to 3:00 pm
18-Oct-17	EB I-70 Single Lane Closed	Bridge Inspection Blanchette	9:00 am to 3:00 pm
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2018

12-Sep-18	WB I-70 Single Right Lane Closure	MoDOT/IDOT Joint River Bridge Inspection Stan Musial	9:00 am to 12:00 pm
17-Oct-18	EB I-70 Single Lane Closed	Bridge Inspection Blanchette	9:00 am to 3:00 pm
21-Nov-18	70/61 Interchange Rolling Lane Drops	Striping Operation	10:00 am to 3:00 pm



FREEWAY MANAGEMENT

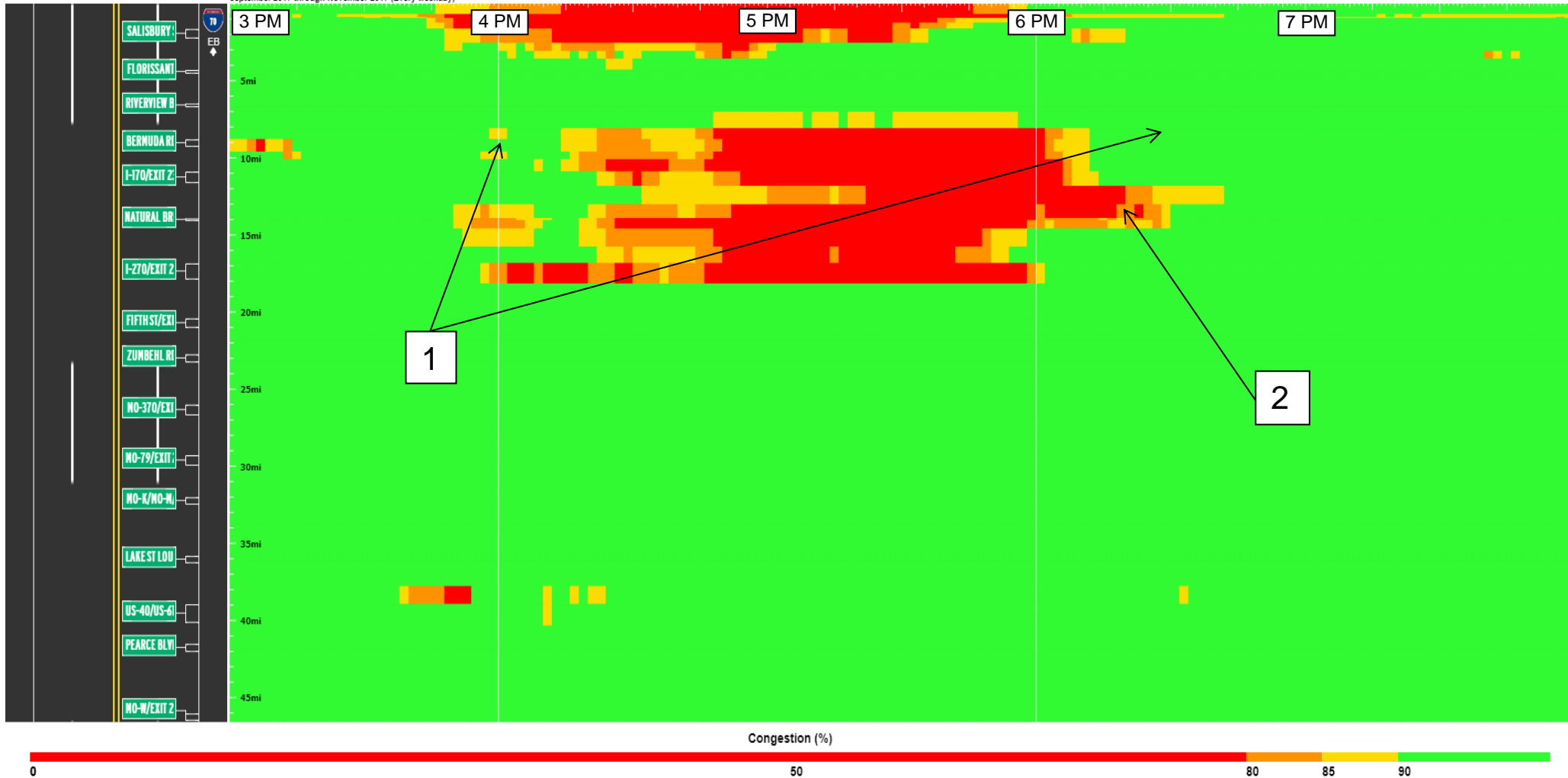
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PM 2017 EB I-70

EB I-70 between Hwy W and Stan Musial Veterans Memorial Bridge

Averaged by 2 minutes for September 2017 through November 2017 (Every weekday)

September 2017 through November 2017 (Every weekday)





FREEWAY MANAGEMENT

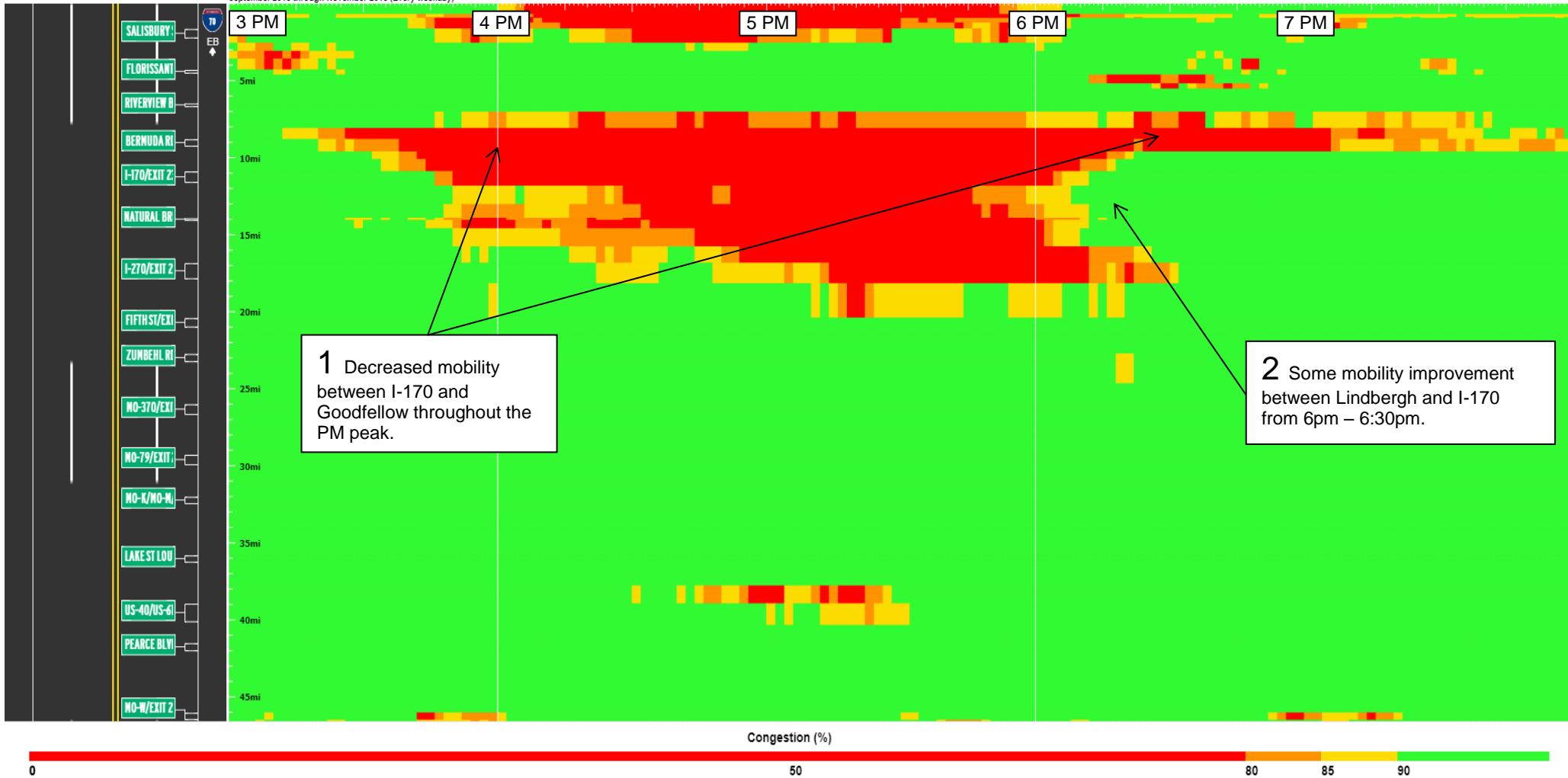
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PM 2018 EB I-70

EB I-70 between Hwy W and Stan Musial Veterans Memorial Bridge

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September 2018 through November 2018 (Every weekday)





FREEWAY MANAGEMENT

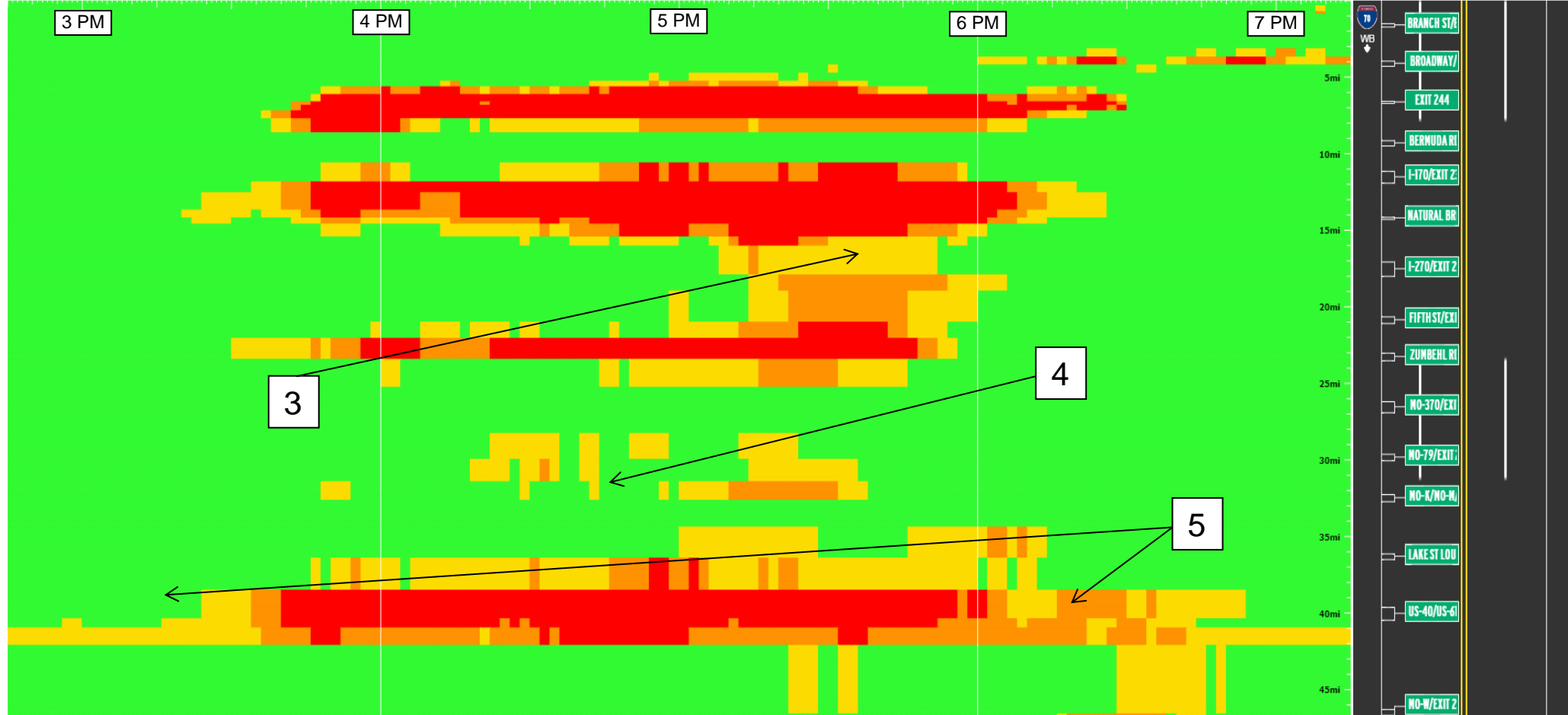
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PM 2017 WB I-70

WB I-70 between Stan Musial Veterans Memorial Bridge and Hwy W

Averaged by 2 minutes for September 2017 through November 2017 (Every weekday)

September 2017 through November 2017 (Every weekday)



Congestion (%)

0

14

80

85

90



FREEWAY MANAGEMENT

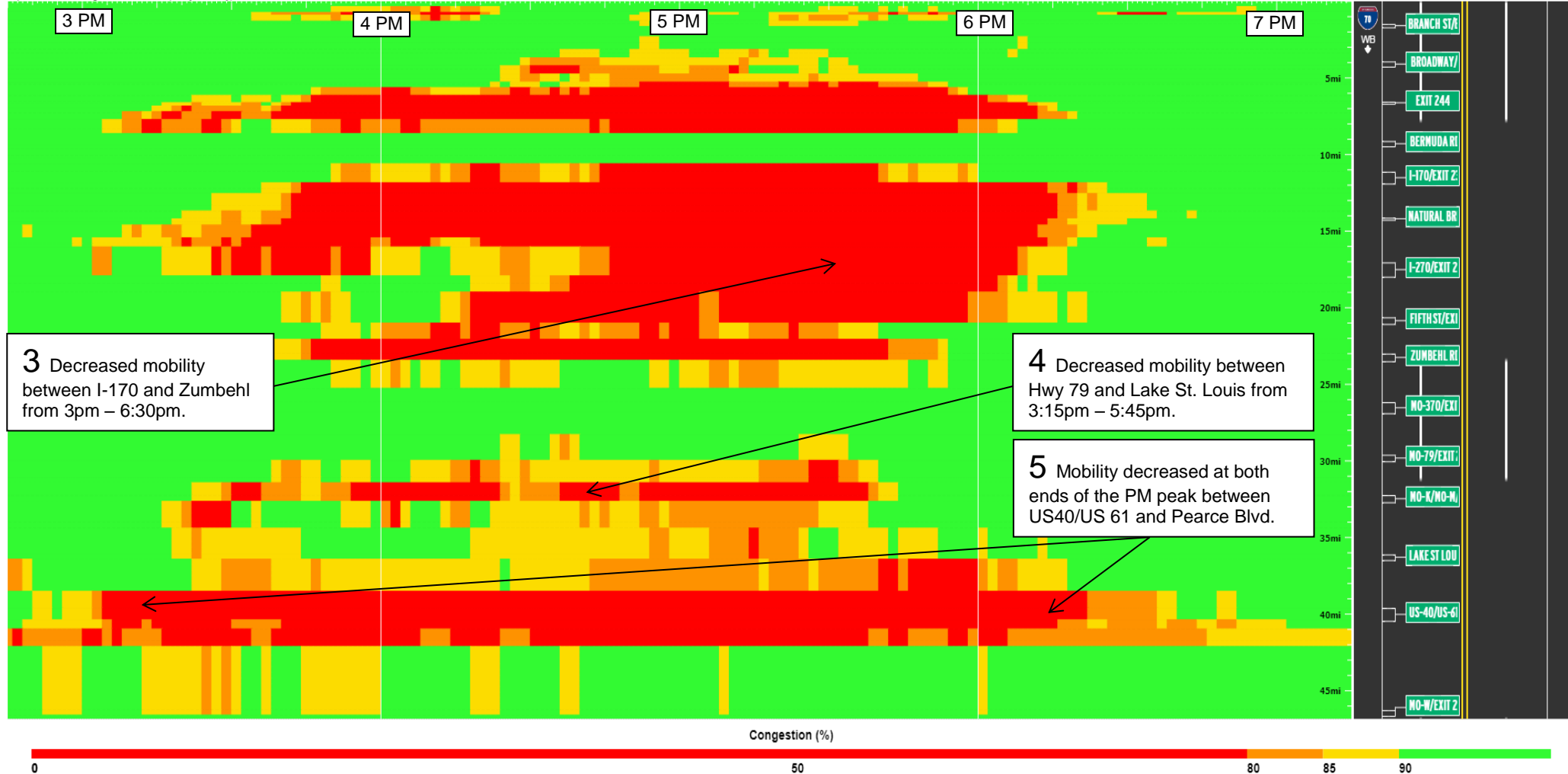
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PM 2018 WB I-70

WB I-70 between Stan Musial Veterans Memorial Bridge and Hwy W

Averaged by 2 minutes for September 2018 through November 2018 (Every weekday)

September 2018 through November 2018 (Every weekday)





TMC Observed Work Zones

	September 2018	October 2018	November 2018
Level of Travel Time Impact	Number of Work Zones	Number of Work Zones	Number of Work Zones
Major Impact	5	7	2
Moderate Impact	19	17	6
Minor Impact	278	247	209
Total	302	271	217

◆ Goal: 91%

SL Mobility Rating:

- ◆ Sep 2018: 99%
- ◆ Oct 2018: 96%
- ◆ Nov 2018: 98%

SL Visibility levels:

- ◆ Sep 2018: 94%
- ◆ Oct 2018: 99%
- ◆ Nov 2018: 92%



Additional Travel Time Impacts through Work Zones

Major Impact (15 Minutes or Above): # Moderate Impact (10-14 Minutes): # # #

(9/1-11/30) Eastbound I-44 from I-270 to Jefferson

2 2

- Continued Bridge work with multiple project and daily lane closures
- All mitigation efforts were in use
- RITIS data recorded additional travel times up to 17 minutes during AM-peak hours

(9/1-11/30) Westbound I-44 from Jefferson to I-270

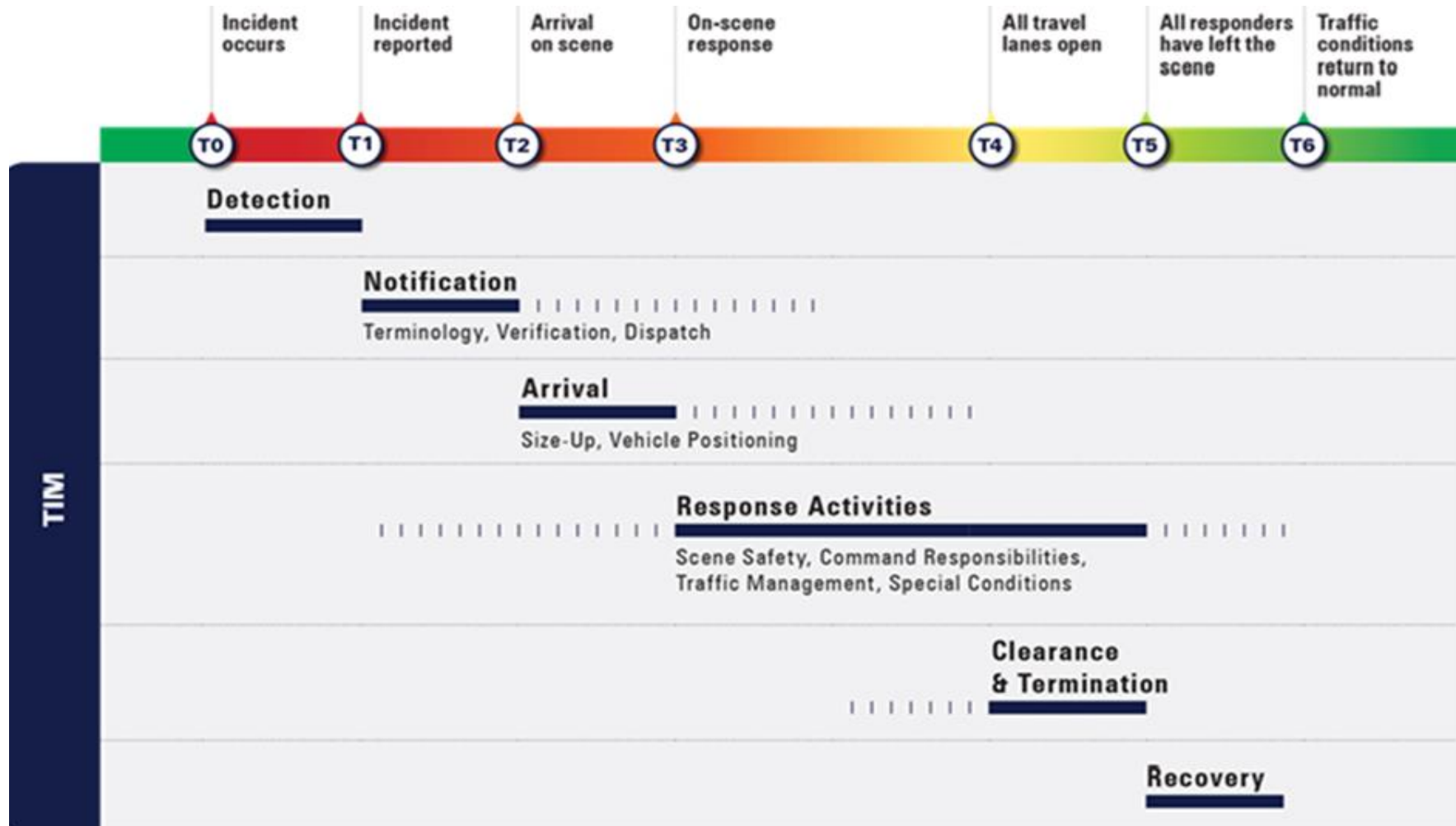
5 24

- Continued Bridge work with multiple projects and daily lane closures
- All mitigation efforts were in use
- RITIS data recorded additional travel times with all delays being in the PM rush

(9/1-11/30) Eastbound I-64 Poplar Street Bridge Work

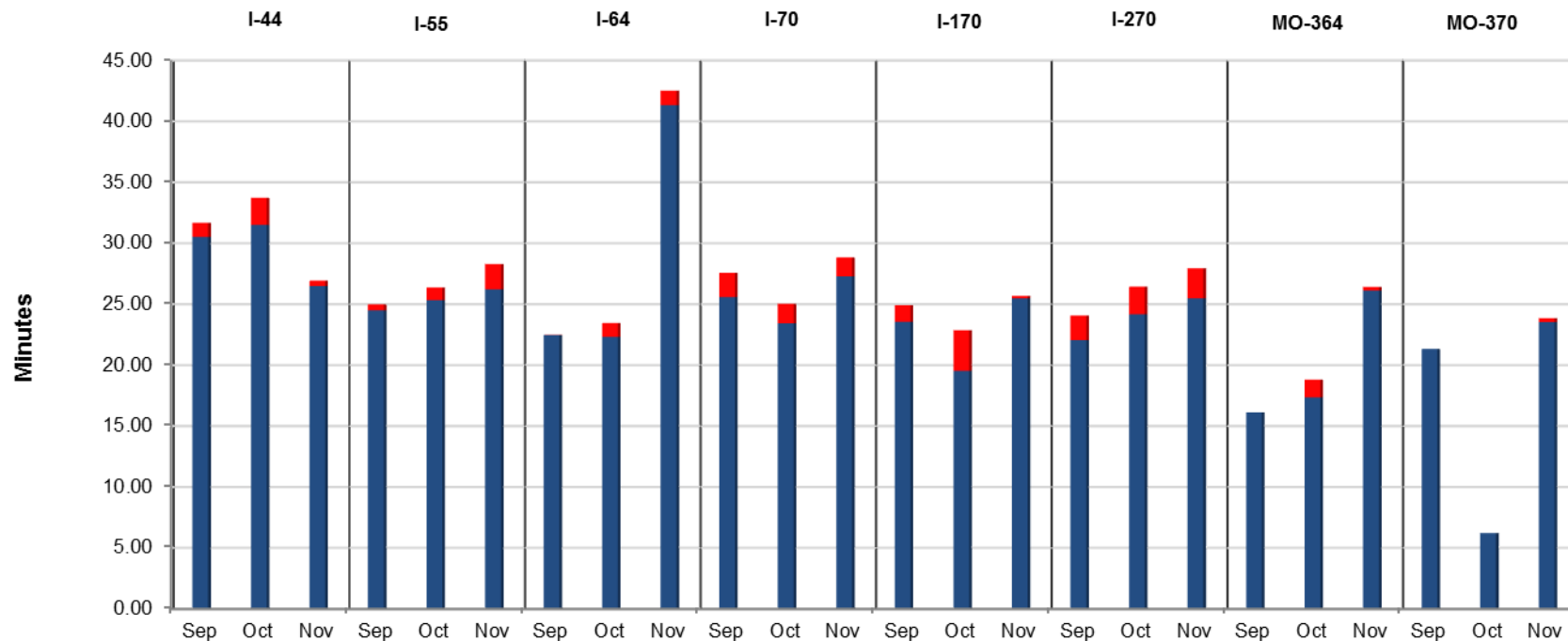
7 16

- Bridge work with daily lane closures
- All mitigation efforts were in use
- RITIS data recorded additional travel times up to 12 minute during non-peak hours





September / October / November 2018
Incidents Summary



■ Average Time for Backup to Clear = T6 - T4

■ Average Time to Clear Incident from Lanes = T4 - T1



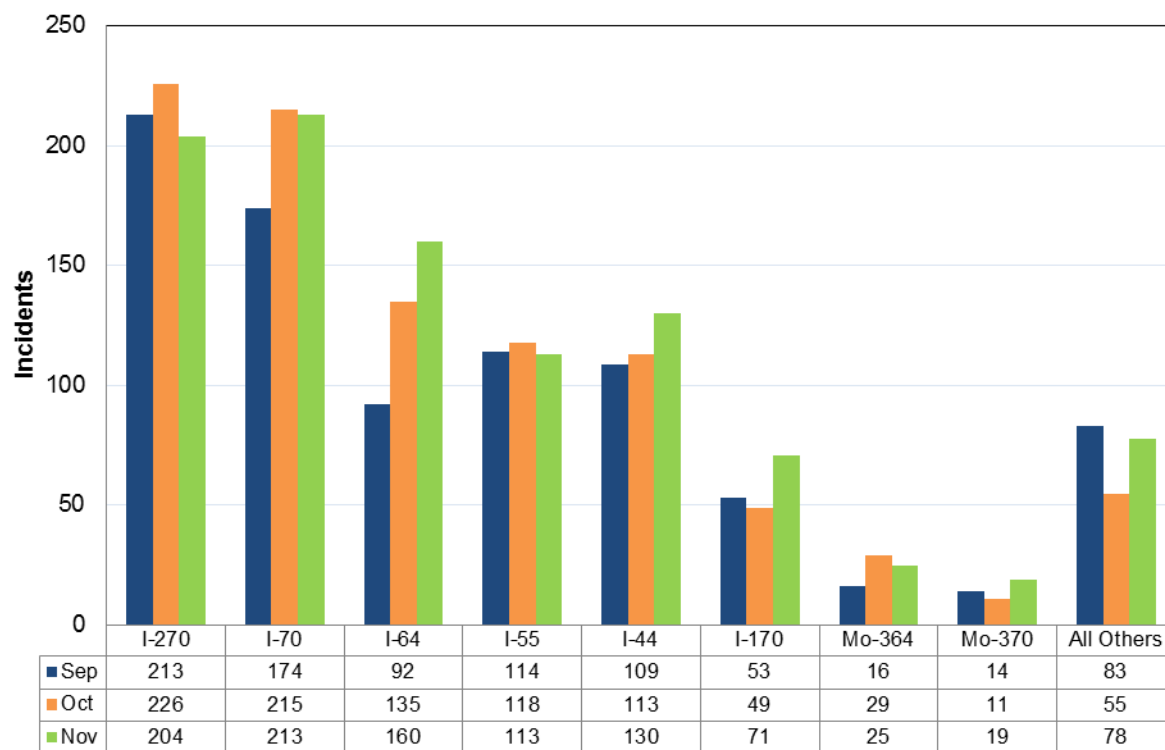
INCIDENT MANAGEMENT

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Total Number of Incidents: / September: 974 / October: 951 / November: 1013

**Total Number of
Lane Blocking Incidents**



Major Impact Incidents

Sep	Oct	Nov
(1)	(2)	(2)

Fatal Incidents

Sep	Oct	Nov
(5)	(7)	(7)

Tractor Trailer Incidents

Sep	Oct	Nov
(51)	(41)	(71)



INCIDENT MANAGEMENT

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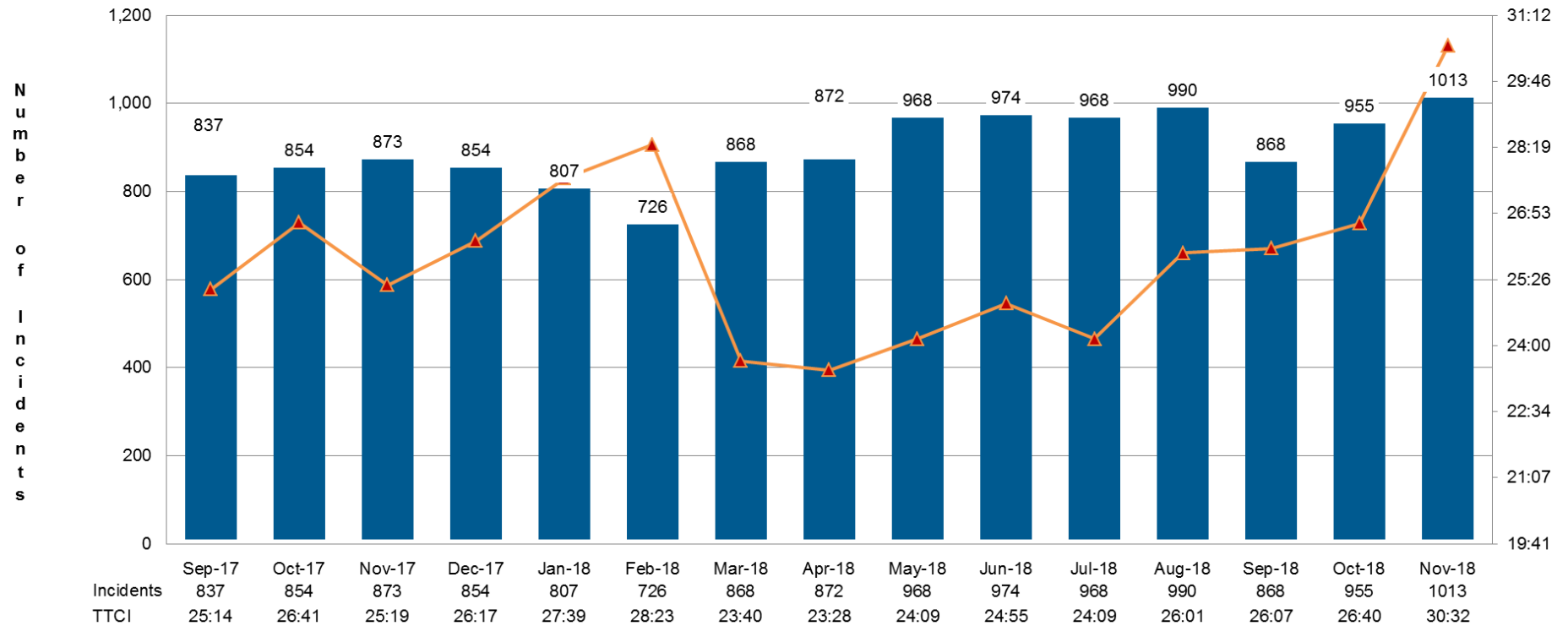
Lane Blocking Incidents by Freeway September, October, November 2018

Interstate	Month	Number of Incidents	Average Time to Clear Incident from Lanes = T4 - T1	Average Time for Backup to Clear = T6 - T4	Freeway Miles	Incidents per Mile
I-44	September	139	26:54	01:17	33	4.21
I-44	October	113	31:50	02:23	33	3.42
I-44	November	141	26:05	00:44	33	4.27
I-55	September	86	23:16	01:18	23	3.74
I-55	October	118	25:33	01:03	23	5.13
I-55	November	113	26:21	02:09	23	4.91
I-64	September	165	24:12	02:47	40	4.13
I-64	October	135	22:32	01:14	40	3.38
I-64	November	145	41:33	01:20	40	3.63
I-70	September	207	25:40	03:36	38	5.45
I-70	October	215	23:44	01:59	38	5.66
I-70	November	206	27:28	01:55	38	5.42
I-170	September	61	23:40	01:47	11	5.55
I-170	October	49	19:52	03:33	11	4.45
I-170	November	73	25:47	00:21	11	6.64
I-270	September	216	20:28	02:14	36	6.00
I-270	October	226	24:16	02:29	36	6.28
I-270	November	205	25:47	02:49	36	5.69
MO-364	September	32	09:30	00:00	11	2.91
MO-364	October	29	17:35	01:47	11	2.64
MO-364	November	12	26:12	00:29	11	1.09
MO-370	September	13	11:00	00:00	13	1.00
MO-370	October	11	06:22	00:00	13	0.85
MO-370	November	28	23:53	00:31	13	2.15
Total	Sep/Oct/Nov	2738	23:19	01:34	602	4.55



2017 - 2018 Number of Incidents and Time to Clear Lanes

Time to Clear Incidents



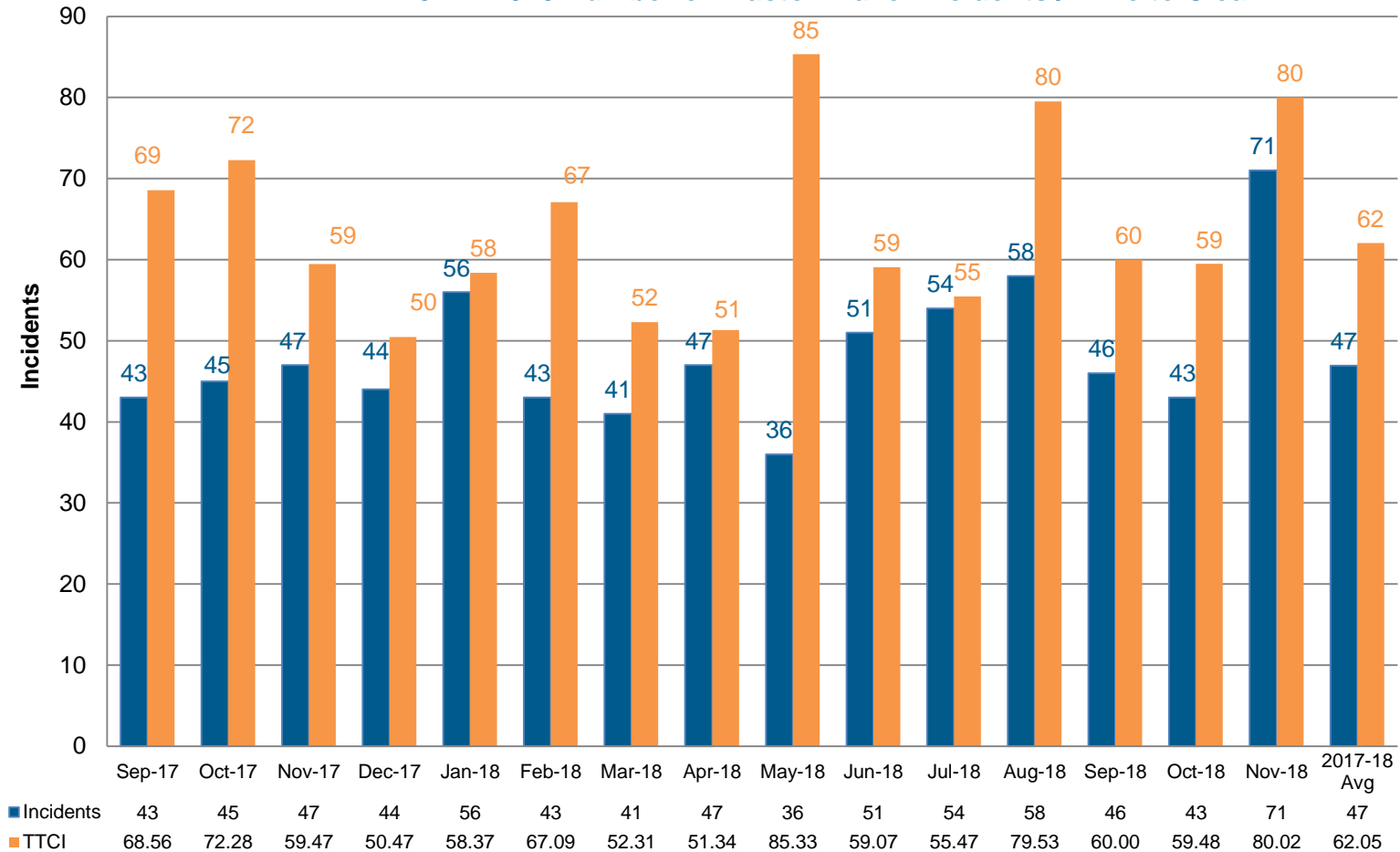


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2017 - 2018 Number of Tractor Trailer Incidents / Time to Clear





INCIDENT MANAGEMENT

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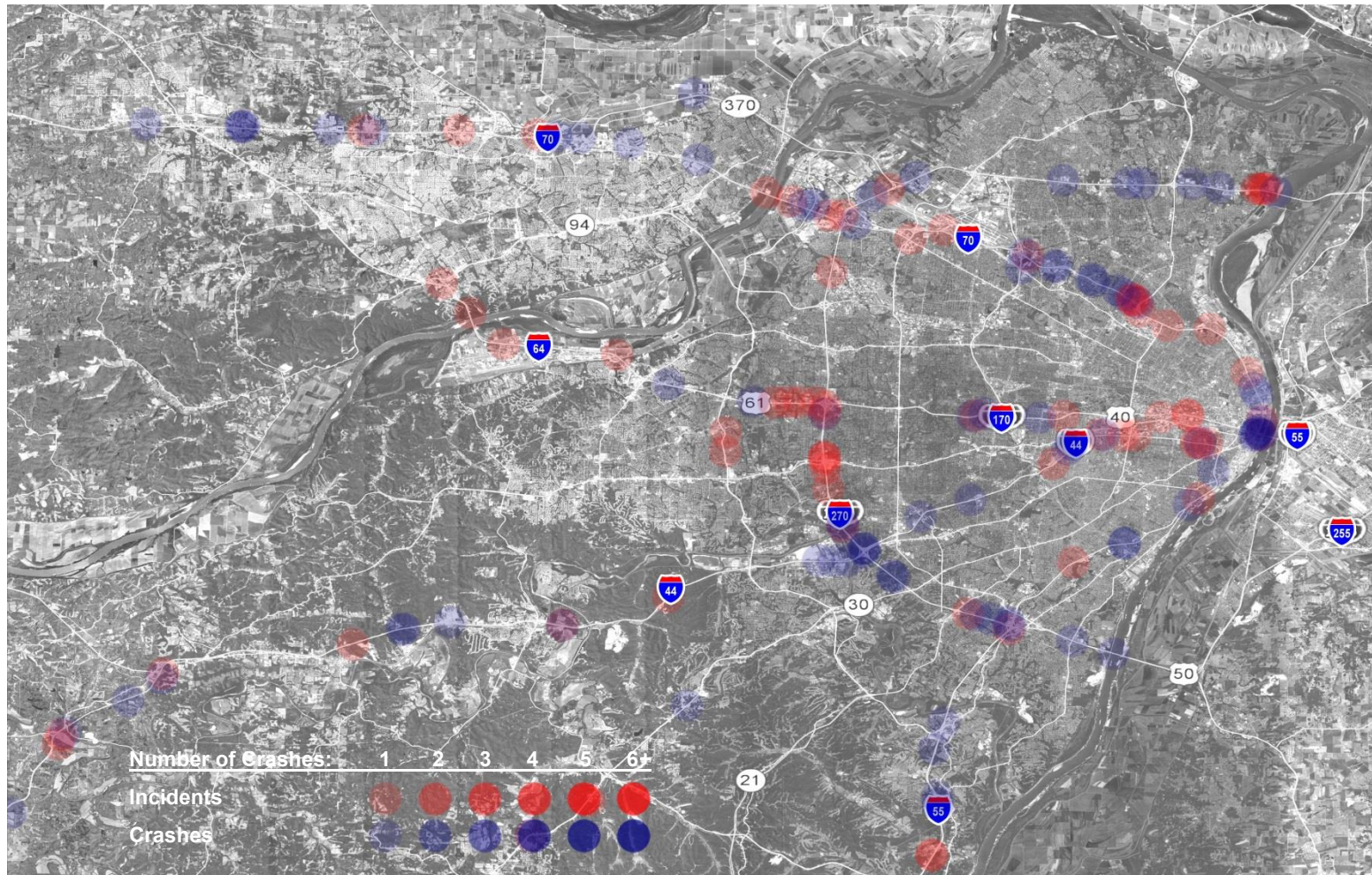


2018 Tractor Trailer Incidents by Route

2018	I-44	I-55	I-64	I-70	I-170	I-255/I-270	Route 364	Route 370	Other	Total
Jan	10	2	8	15	3	16	0	1	1	56
Feb	9	3	4	12	1	11	0	0	3	43
Mar	6	9	1	14	0	10	0	0	1	41
Apr	12	4	5	12	0	9	0	1	3	47
May	11	4	3	11	0	6	0	1	0	36
Jun	10	4	8	20	0	8	0	1	0	51
Jul	14	6	9	13	1	7	0	2	2	54
Aug	13	6	4	16	1	14	0	1	3	58
Sep	14	5	7	7	0	11	0	0	2	46
Oct	6	1	7	11	0	12	0	0	4	41
Nov	19	10	7	19	1	13	0	1	1	71
Dec										
Yearly Total	85	38	42	113	6	81	0	7	13	385

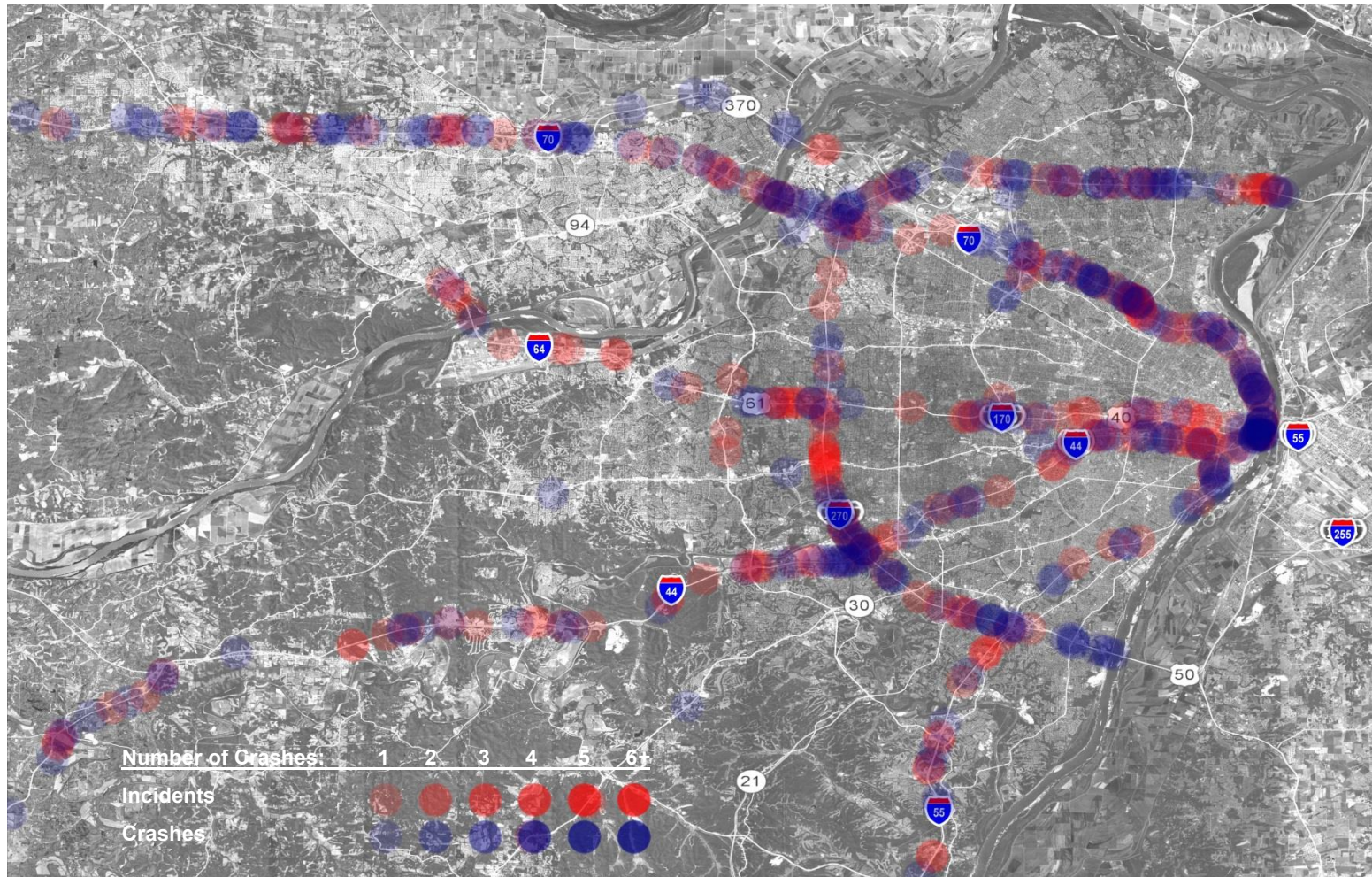


September 2018 – November 2018 Tractor Trailer Incidents Map





January 2018 – November 2018 Tractor Trailer Incidents Map





INCIDENT MANAGEMENT

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Incidents over Two Hours September / October / November 2018

Incidents in red denote high mobility impact

#	Date & Time	Day of Week	Route	Location	Description	Duration HH/MM
1	9/4/2018 3:53	Tuesday	I-44 WB	AT ROUTE JJ/W	Vehicle Fire with debris removal	2:27
2	9/5/2018 17:03	Wednesday	I-44 EB	BEFORE I-270	Three-vehicle tractor trailer crash with fluid cleanup	2:29
3	9/6/2018 0:34	Thursday	I-70 EB	TO N HANLEY RD	Single vehicle crash into standalone signal	3:19
4	9/6/2018 15:59	Thursday	WATSON RD CST	RAVENSRIDGE DR CST	Water main break with damage to roadway	2:47
5	9/7/2018 10:10	Friday	MO 141 SB	TO I-55 NB	Overtaken tractor trailer carrying a load of bricks	3:26
6	9/7/2018 10:55	Friday	94 MO	SAALE RD CRD	Powerlines down with emergency vehicles in lanes	2:38
7	9/7/2018 21:34	Friday	I-55 SB	AT LOUGHBOROUGH	Three-vehicle crash with fatal pedestrian hit and run	2:28
8	9/7/2018 21:55	Friday	I-55 SB	PAST RICHARDSON RD	Multi-vehicle crash involving EMS vehicle with patients	2:31
9	9/9/2018 0:19	Sunday	I-55 SB	TO I-270 NB	Three-vehicle crash with median wall damage	2:51
10	9/19/2018 8:54	Wednesday	I-270 EB	PAST BELLEFONTAINE RD	Car vs. tractor trailer crash with fuel leak of 60 gallons	4:02
11	9/19/2018 11:45	Wednesday	MANCHESTER RD WB	BEFORE MO 141	Emergency vehicles for manhole cover utility break	2:37
12	9/19/2018 15:29	Wednesday	I-55 SB	BEFORE IMPERIAL MAIN ST	25 vehicle crash with 10 mile queue	2:11
13	9/22/2018 7:51	Saturday	I-70 EB	TO LUCAS & HUNT RD	Fatal rollover crash with ejection and reconstruction	2:19
14	9/24/2018 0:09	Monday	I-170 SB	PAST I-70	Two-vehicle crash with debris in lanes	2:38
15	9/25/2018 6:07	Tuesday	T RT	100 CO	Overtaken tractor trailer crash	7:37
16	9/26/2018 12:49	Wednesday	I-270 EB	AT LILAC AVE	Travel trailer came loose hit embankment	3:50
17	9/27/2018 14:33	Thursday	231 MO	YAEGER RD CRD	Two-vehicle crash into power pole	2:21
18	9/27/2018 16:31	Thursday	100 MO	VOSS BRINK RD CRD	Overtaken car crash	2:00
19	10/5/2018 17:16	Friday	MO 141 NB	PAST SPRINGDALE	Vehicle fire with debris burned into pavement	2:22
20	10/5/2018 18:47	Friday	100 MO	SOUTHPOINT RD CRD	Car vs. motorcycle fatal crash with reconstruction	3:36
21	10/6/2018 1:18	Saturday	I-44 WB	BEFORE ANTIRE RD	Single-vehicle fatal crash	2:42
22	10/7/2018 8:45	Sunday	I-44 WB	ON RAMP FROM I-64 WB	Overtaken tractor trailer crash	3:32



INCIDENT MANAGEMENT

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#	Date & Time	Day of Week	Route	Location	Description	Duration HH/MM
23	10/8/2018 19:55	Monday	RIVERVIEW DR CST	SCRANTON AVE CST	Two-vehicle fatal crash	2:15
24	10/10/2018 15:35	Wednesday	US 67 NB	PAST ELMGROVE LN	Gas main break	6:09
25	10/16/2018 2:51	Tuesday	I-70 WB	PAST SHREVE	Single-vehicle fatal crash with ejection/reconstruction	2:50
26	10/16/2018 2:54	Tuesday	I-70 WB	ON RAMP FROM SHREVE AVE	Police closed ramp as part of crash reconstruction	2:47
27	10/19/2018 6:27	Friday	I-270 NB	TO I-44 WB	Overtaken tractor trailer crash with busted trailer	2:33
28	10/20/2018 0:03	Saturday	I-70 EB	BEFORE TUCKER BLVD	Two-vehicle crash pedestrian fatally struck	2:02
29	10/20/2018 18:06	Saturday	I-70 WB	BEFORE JENNINGS STA RD	Stalled tractor trailer awaiting tow	2:42
30	10/22/2018 1:23	Monday	I-44 EB	PAST PACIFIC	Tractor trailer fire/cargo unloaded to extinguish	4:49
31	10/22/2018 8:55	Monday	MO 141 NB	PAST OLD WOODS MILL RD	Multi-vehicle crash involving a car hauler	2:31
32	10/22/2018 17:29	Monday	I-44 EB	TO ANTIRE RD	Overtaken car crash with trailer blocking exit ramp	2:18
33	10/23/2018 21:12	Tuesday	I-70 WB	AT MISSOURI RIVER	Pedestrian climbed down below bridge structure	3:47
34	10/24/2018 10:03	Wednesday	I-64 EB	PAST HANLEY RD	Tractor trailer spilled load of scrap copper	4:36
35	10/24/2018 11:42	Wednesday	MO 141 SB	PAST CREVE COEUR MILL RD	Overtaken dump truck loaded with gravel and sand	3:08
36	10/26/2018 10:13	Friday	RIVERVIEW DR CST	HALL ST CST	Two-vehicle crash with 2 fatalities and 6 injuries	4:41
37	10/31/2018 7:30	Wednesday	I-255 EB	AT TELEGRAPH RD	Overtaken tractor trailer crash in median	4:20
38	11/2/2018 4:23	Friday	I-70 WB	BEFORE RIVERVIEW	Stalled tractor trailer with locked up brakes	4:34
39	11/8/2018 5:22	Thursday	I-70 WB	TO I-170 SB	Overtaken tractor trailer loaded with wooden pallets	5:54
40	11/8/2018 6:07	Thursday	US 67 NB	AT MO 180	Large hole in roadway with damaged vehicles	2:46
41	11/8/2018 20:39	Thursday	I-70 EB	PAST ZUMBEHL RD	Tractor trailer struck MO Logo sign 8 vehicles hit sign	3:57
42	11/9/2018 19:22	Friday	US 67 NB	AT MISSOURI RIVER	Three-vehicle crash	3:18
43	11/9/2018 19:37	Friday	US 67 NB	AT MISSISSIPPI RIVER	Two-vehicle crash area treated with salt	2:25
44	11/10/2018 3:56	Saturday	I-270 NB	TO I-44 WB	Tractor trailer crash vehicle had to be unloaded	4:49
45	11/11/2018 10:13	Sunday	I-70 EB	PAST KINGSHIGHWAY	Stalled tractor trailer with locked up brakes	2:08
46	11/13/2018 4:39	Tuesday	I-64 EB	PAST BOONES CROSSING	Tractor trailer fatally struck a stalled tractor trailer	12:18



INCIDENT MANAGEMENT

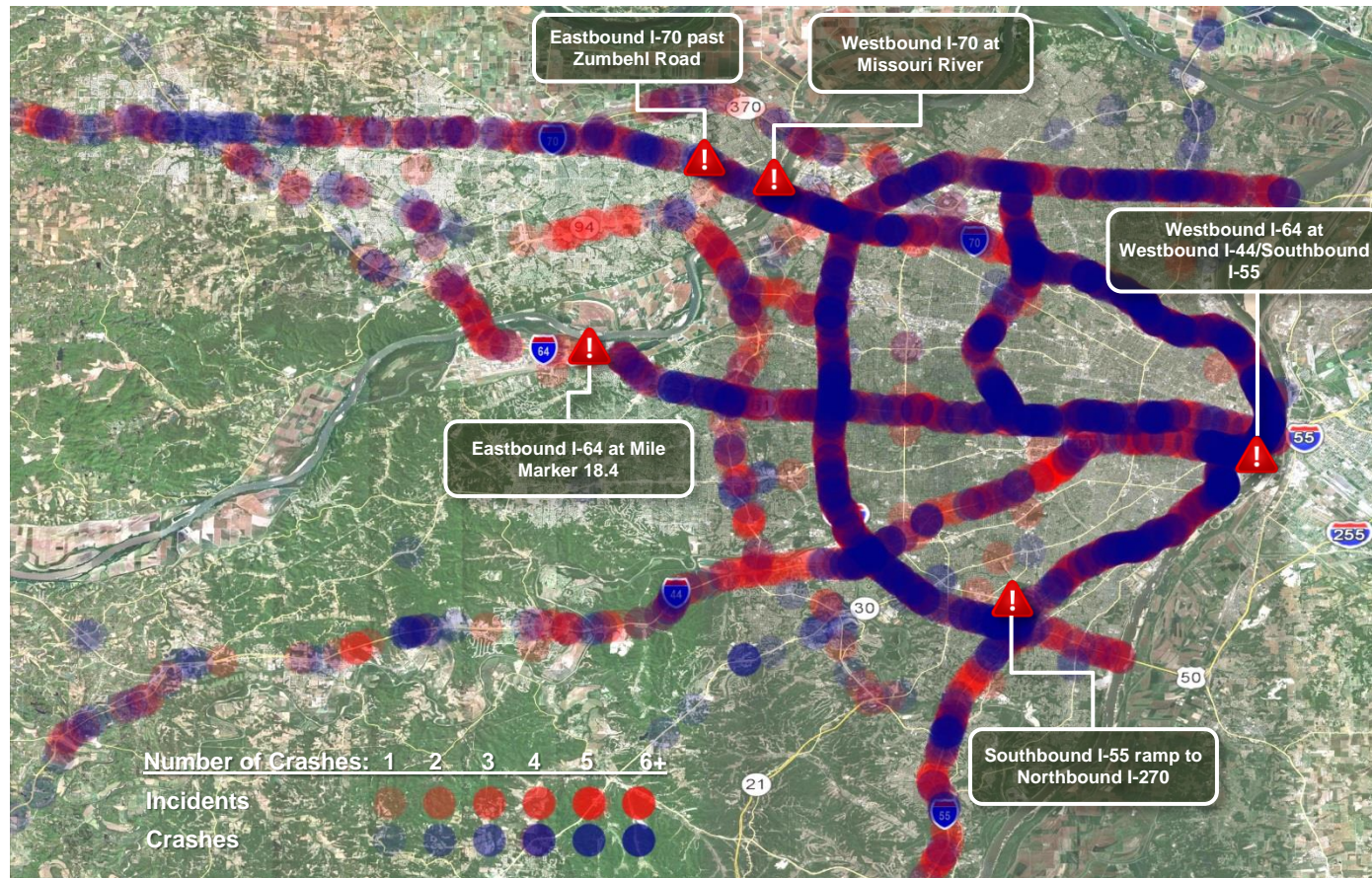
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#	Date & Time	Day of Week	Route	Location	Description	Duration HH/MM
47	11/13/2018 5:08	Tuesday	I-64 WB	BEFORE BOONES CROSSING	Emergency vehicles fighting fire from EB crash	5:30
48	11/14/2018 13:37	Wednesday	I-44 EB	BEFORE JAMIESON AVE	Stalled vehicle ; hitch busted on a bus towing a trailer	2:24
49	11/14/2018 21:36	Wednesday	100 MO	MELROSE RD CST	Two vehicle crash; MoDOT plow truck struck	2:07
50	11/15/2018 1:27	Thursday	I-44 EB	BEFORE SIX FLAGS RD	Single vehicle crash; jackknifed tractor trailer	4:28
51	11/15/2018 1:54	Thursday	I-55 NB	TO I-270 NB	Stalled tractor trailer	2:00
52	11/15/2018 2:00	Thursday	I-55 SB	BEFORE RICHARDSON RD	Single vehicle tractor trailer crash	2:22
53	11/15/2018 6:53	Thursday	I-64 WB	AT CHESTERFIELD PKWY WEST	Single vehicle crash	2:15
54	11/16/2018 5:25	Friday	I-70 EB	AT LUCAS & HUNT RD	Single vehicle tractor trailer crash with diesel fuel spill	4:05
55	11/17/2018 16:31	Saturday	MO 94 WB	PAST CEDAR GLEN DR	Two-vehicle fatal crash	3:28
56	11/17/2018 17:19	Saturday	MO 94 EB	PAST CEDAR GLEN DR	Emergency vehicles	2:33
57	11/19/2018 9:43	Monday	US 67 SB	PAST MONTAUK DR	Two-vehicle crash in work zone	2:21
58	11/20/2018 5:36	Tuesday	I-270 SB	PAST BIG BEND BLVD	Overtaken box truck	2:03
59	11/20/2018 17:44	Tuesday	I-64 WB	ON RAMP FROM MARKET ST	Stalled tractor trailer	2:33
60	11/20/2018 21:56	Tuesday	I-270 SB	PAST I-44	Truck spilled a load of dirt multiple vehicles involved	3:11
61	11/21/2018 22:10	Wednesday	OSAGE DR CRD	S FOX CREEK LN CST	Two-vehicle fatal crash with reconstruction	2:20
62	11/21/2018 23:41	Wednesday	I-70 WB	TO ROUTE K/M	Single-vehicle fatal crash with reconstruction	2:18
63	11/23/2018 23:14	Friday	180 MO	ST CHARLES LN CST	Police activity following a shooting and crash	9:09
64	11/24/2018 18:51	Saturday	MO 364 EB	BEFORE MO 94 EB	Two-vehicle fatal crash	2:42



September/October/November 2018 Incidents with Mobility Impact Map



! Denotes Location of Major Impact Traffic Incidents



INCIDENT MANAGEMENT


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Major Impact Traffic Incidents and Mitigation

9/9/2018 (Sunday)

- **Time:** 12:19 am – 3:10 am
- **Location:** St. Louis County – Ramp from Southbound I-55 to Northbound I-270
- **Event Type:** Tractor trailer crash into median barrier wall
- **Estimated Initial Impact:** Non-Rush Hour: 3 of 3 Southbound travel lanes affected equals (=) 100%
- **Incident Details:** A tractor trailer hit the barrier wall while trying to get onto I-270 northbound and struck two other vehicles. The debris from the barrier wall scattered into the surrounding lanes creating multiple flat tires on vehicles traveling through debris.
- **Action Taken:** Police advised the TMC of an accident involving a Tractor Trailer with a lot of debris. Coincidentally, a MoDOT Emergency Response vehicle was arriving on the mainline of Westbound I-255/I-270 I-55 to address the debris from the barrier wall and assist a couple of vehicles with flat tires. Emergency Response tried to give another access point to the main incident on the ramp by holding the lanes closed. Emergency Response remained on the mainline incident with Police, while EMS, Fire, MSHP, and more Police responded to the ramp. When the mainline of I-255 was clear. Emergency Response moved to the main incident to assist. DMS boards were activated within one minute of the incident starting. MSHP, PD, EMS and Fire were all on scene at the start of the incident. PD requested MoDOT Maintenance response. Maintenance was contacted and remained on scene until the end of the incident. While Maintenance cleaned up the oil and debris, Emergency Response provided traffic control. Due to the nature of the cleanup, there were several times the entire ramp was closed and then re-opened.
- **Event Duration:** 2 hours and 51 minutes

	Southbound I-55 ramp to Northbound I-270	Left Shoulder	Left Exit	Lane 1	Right Exit	Right Shoulder
	Closed Hours/Minutes	0:48	0:47	2:51	2:51	2:51



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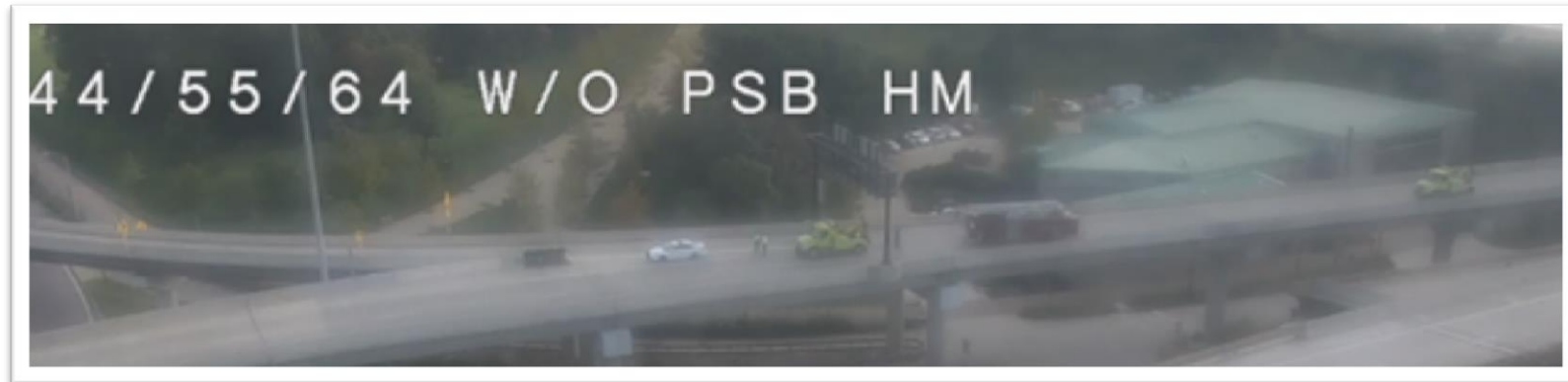


Major Impact Traffic Incidents and Mitigation

10/7/2018 (Sunday)

- **Time:** 8:45 am – 12:17 pm
- **Location:** St. Louis City – Westbound I-64 at Westbound I-44/Southbound I-55
- **Event Type:** Single-vehicle overturned tractor trailer crash
- **Estimated Initial Impact:** Non-Rush Hour: 2 of 2 travel lanes affected equals (=) 100%
- **Incident Details:** The TMC operators heard over the police scanner of an over turned tractor trailer crash. Vehicle tipped over while driving on the ramp.
- **Action Taken:** St. Louis City and the Fire Department blocked lanes 1 and 2. The TMC dispatched MoDOT Emergency Response to the scene. Emergency Response helped IDOT divert traffic onto Eastbound I-44. Traffic could also continue onto Westbound I-64. The EOC, Maintenance Superintendent, Communication Staff, IDOT, and the MoDOT Incident Management Coordinator were all notified. The TMC messaged for the event and entered it into TMS to notify the public of the closure. An incident alert and updates were used to advise management of the closure. There was no traffic queue and returned to normal immediately after all lanes were opened. Extended duration was due to unloading the trailer and waiting to flip the tractor trailer back upright.
- **Event Duration:** 3 hours and 32 minutes

	Westbound I-64 at Westbound I-44 /Southbound I-55	Left Shoulder	Lane 1	Lane 2	Right Shoulder
		Closed Hours/Minutes	3:25	3:25	3:32





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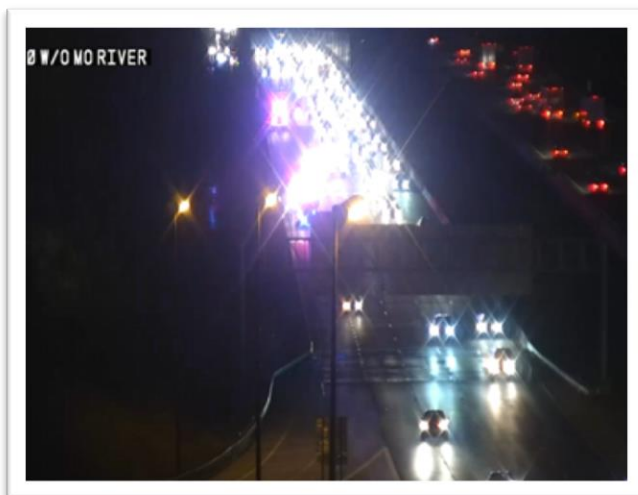


Major Impact Traffic Incidents and Mitigation

10/23/2018 (Tuesday)

- **Time:** 9:12 pm – 12:59 am
- **Location:** St. Charles County – Westbound I-70 at Missouri River
- **Event Type:** Pedestrian under bridge structure
- **Estimated Initial Impact:** Non-Rush Hour: 5 of 5 travel lanes affected equals (=) 100%
- **Incident Details:** A pedestrian walking across the bridge climbed below the bridge deck to cross and became stuck under the structure.
- **Action Taken:** Incident found on camera. MSHP, St. Charles City, Fire and EMS responded and closed the 3 right lanes. Incident entered into ATMS, appropriate messaging activated. MoDOT Emergency Response was dispatched and advised that emergency crews did not know how to reach the victim and requested we contact Hampton Bridge to see if any snoop trucks were in the area. Maintenance advised there were none. Boats dispatched to scene in case the pedestrian fell. Police closed all lanes at 10:05 pm. Messaging changed advising I-270 traffic and I-70 traffic west of I-270 to use MO 364 or MO 370. Westbound I-70 traffic was diverted to Northbound Route 141. At 10:30 pm MSHP closed all I-270 ramps to Westbound I-70 to relieve traffic on Northbound Route 141. A bucket truck was dispatched to scene to rescue the pedestrian. Community relations, MoDOT Incident Management Coordinator, MoDOT Maintenance and EOC were all notified. Pedestrian rescued from under the bridge. All lanes opened briefly at 12:33 am to clear the queue. Lanes closed again at 12:43 am diverting traffic to Northbound Route 141 so Emergency Response could assist multiple stalls in traffic lanes. Police had opened the Northbound Route 141 ramp to Westbound I-70 and cars were entering the incident zone. Contacted MSHP and they closed the ramp again. All stalled vehicles were cleared and all lanes opened at 12:59 am.
- **Event Duration:** 3 hours and 47 minutes

	Westbound I-70 at Missouri River	Left Shoulder	Lane 1	Lane 2	Lane 3	Lane 4	Lane 5	Right Shoulder
Closed Hours/Minutes		2:44	2:44	2:44	3:22	3:24	3:38	3:38





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Major Impact Traffic Incidents and Mitigation


11/8/2018 (Thursday)


- **Time:** 8:39 pm – 12:36 am
 - **Secondary Time:** 9:55 pm – 11:25 pm
 - **Tertiary Time:** 10:40 pm – 11:49 pm
- **Location:** St. Charles County – Eastbound I-70 past Zumbahl Road
 - **Secondary Location:** St. Charles County, Eastbound I-70 past Zumbahl Road
 - **Tertiary Location:** St. Charles County, Eastbound I-70 at Cave Springs
- **Event Type:** Multi-Vehicle Accident with a Secondary and Tertiary crash
- **Estimated Initial Impact:** Non- Rush Hour: 2 of 3 travel lanes affected equals (=) 66%
- **Incident Details:** A motorist called the TMC and advised he was on the side of the road with several other motorists, all of whom had multiple flat tires after running over a large roadway sign. It was later determined that the driver of a tractor trailer had fallen asleep at the wheel, struck a MoLOGO sign sending it onto the highway. Nine vehicles then struck the sign causing tire/wheel damage. While Police and MoDOT Emergency Response were working the initial incident, a two vehicle secondary accident occurred. MSHP shut the highway down for safety as there were numerous pedestrians out walking around from all the vehicles involved in the primary incident. Traffic was diverted off onto Cave Springs. Just as lane one was being reopened from the secondary incident, St. Peters Police reported a tertiary accident at the Cave Springs closure. This involved a passenger vehicle that ran into the rear of a tractor trailer. All lanes remained closed and the diversion point was pushed back to MO 370.
- **Action Taken:** TMC staff entered the incident into the system and dispatched a MoDOT Emergency Response Unit to the area. They contacted St. Charles Police to ensure they were also in route. Police arrived at 8:45 pm and took the two right lanes. The incident was updated with the closure and DMS boards were activated. This also entered the incident into ATMS to notify the public. Shortly thereafter, MSHP responded and took command of the scene. While Police and Emergency Response were working to get six vehicles towed and tires changed on three others. The area began receiving flurries and scattered light snowfall. An hour and fifteen minutes into this initial incident, two vehicles were involved in a crash in lane one parallel with the emergency responders. MSHP closed the highway down for safety concerns as there were numerous pedestrians walking around from all the vehicles involved. The TMC had an additional Emergency Response Unit respond to assist with traffic control for the closure. The St. Peters Police Department responded and shut the highway down at Cave Springs diverting traffic off at that exit. The TMC updated the DMS boards and pushed them out to Wentzville. After the vehicles involved in the secondary crash were towed from the scene and responders were in process of opening the left lane for traffic, St. Peters Police advised they just had another crash at the Cave Springs diversion point. The MoDOT Emergency Response unit that worked the secondary accident then responded west and assisted St. Peters Police in closing the highway and diverting traffic at MO 370. Again, TMC operators updated DMS boards to keep drivers informed, notified the EOC, Area Engineer, Community Relations, and the Incident Management Coordinator. Duration was due to the number of vehicles involved, ten of which had to be towed from the scene. One person was injured in the secondary and was transported to a local hospital. Traffic queued approximately 1.5 miles at the start, but had cleared out midway through the secondary accident.



- **Initial Event Duration:** 3 hours 57 minutes
- **Secondary Duration:** 1 hour 30 minutes
- **Tertiary Duration:** 1 hours 9 minutes

	Eastbound I-70 past Zumbahl Road	Left Shoulder	Lane 1	Lane 2	Lane 3	Right Shoulder
Closed Hours/Minutes		0:00	0:00	2:57	3:57	3:57

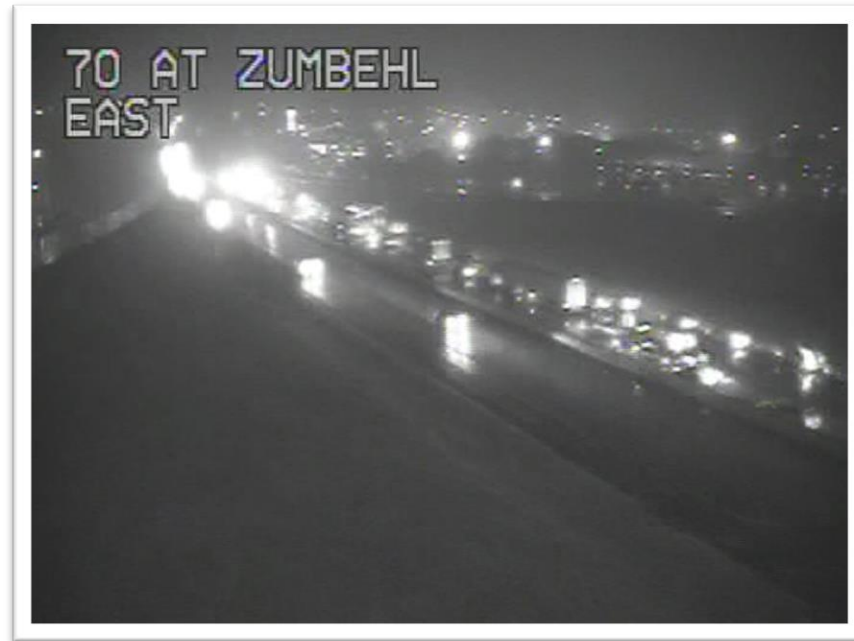
	Eastbound I-70 past Zumbahl Road	Left Shoulder	Lane 1	Lane 2	Lane 3	Right Shoulder
Closed Hours/Minutes		1:30	1:30	1:30	1:30	1:30

	Eastbound I-70 at Cave Springs	Left Shoulder	Lane 1	Lane 2	Lane 3	Right Shoulder
Closed Hours/Minutes		1:09	1:09	1:09	1:09	1:09



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Major Impact Traffic Incidents and Mitigation

11/13/2018 (Tuesday)

- **Time:** 4:39 am – 4:57 pm *** Fatal ***
- **Location:** St. Louis County – Eastbound I-64 at Mile Marker 18.4
- **Event Type:** Two-vehicle crash
- **Estimated Initial Impact:** Rush Hour: 3 of 3 travel lanes affected equals (=) 100%;
- **Incident Details:** The TMC operators observed through the video detection system of a backup from a two vehicle crash. A tractor trailer (vehicle one) was heading eastbound on I-64 veered off the road and struck a parked tractor trailer (vehicle two), killing the driver of vehicle one. Both vehicles became engulfed in flames blocking lane three.
- **Action Taken:** The TMC dispatched MoDOT Emergency response to the scene. Chesterfield Police, Fire, and EMS blocked all lanes for eastbound traffic. Multiple MoDOT Emergency Responders arrived on scene and started blocking traffic from Spirit of St. Louis Boulevard on ramp, Long Road on ramp, Boones Crossing on ramp, and Chesterfield Airport Road/Baxter Road on ramp to Eastbound I-64. Traffic was diverted from Eastbound I-64 to Eastbound MO 364 or MO 94 to Route 141. MSHP arrived on scene and started diverting traffic onto Chesterfield Airport Road as a detour. The vehicles on fire were extinguished and the MoDOT Maintenance Superintendent responded to assess the barrier wall damage. MoDOT maintenance helped assist with debris clean up. DNR was notified and a reconstruction Team responded. Multiple large tows responded to remove the tractor trailers. The ER Supervisor, Communication Staff, Maintenance Superintendent, EOC, Motor Carriers and the MoDOT Incident Management Coordinator were all notified. The TMC messaged for the event and entered it into TMS to notify the public of the closure. An incident alert, update and cleared were used to inform management of the closure and re-opening. Traffic queued approximately 4.4 miles for Eastbound I-64 and approximately 8.6 miles for MO 364 from Route 141, but returned to normal after all lanes were opened. The tractor trailer fire, reconstruction, and debris removal contributed to the lengthy closure.
- **Event Duration:** 12 hours and 18 minutes

	Eastbound I-64 past Boone's Crossing	Lane 1	Lane 2	Lane 3	Right Shoulder
Closed Hours/Minutes		9:14	9:16	12:18	12:18

